

HISTORICAL RECORDS  
OF THE  
VARIOUS AFFECTIONS CURED  
BY MEANS OF THE  
ELECTRO-CHEMICAL BATH;

PRECEDED BY AN  
INTRODUCTION ON THE MODUS OPERANDI OF THIS MODE OF TREATMENT,  
AND A RATIONALE OF EACH CASE.

EXTRACTED FROM

DR CAPLIN'S CASE-BOOK; K

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## P R E F A C E.

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THE pamphlet I now present to the public was intended to make a part of the Third Edition of my Treatise on the 'Electro-Chemical Bath, and the Relation of Electricity to the Phenomena of Life, Health, and Disease;' but my Professional duties not allowing me to devote the requisite time to remake this little work, I have been advised by my friends to publish at once an abstract of some of the most striking cases they were acquainted with, in order to bring before the public a series of facts which cannot be controverted.

Facts are stubborn things, because truth cannot be elucidated but by facts. On the other hand, I am daily asked for what kind of affections my bath may be used? To this question I cannot give a better answer than to report the cases which have been cured by my mode of treatment.

The narration of cases is not an attractive subject, when it relates only the daily application of means employed during the course of the disease; it always leaves the reader ignorant of the why and wherefore, without throwing any light on the subject. I thought, therefore, to add to most of the cases a rationale of the nature of the affection and its cause, and the *modus operandi* of the means employed for its cure.

I have avoided technicalities—that maze of difficulties, which is but a mystification for readers uninitiated to the science.

As this pamphlet is written for the public in general, it is but right that it should be understood by every one. If a few words are found which are not in the dictionary, there are reasons for that which will be appreciated.

This book is not intended to be a literary work, but an illustration of facts.

My intention was to classify the varieties of the same diseases under one head; this I shall do as much as possible, but as for the present I can only present a portion of the cases I have in hand, being anxious to bring without delay the matter before the public, and it being my intention to publish from time to time additional matter, this order cannot be followed on all occasions.

I hope the reader will accept this opusculum as it is; it being as yet but an embryo, which I trust will acquire its full development, as everything does, viz., in the course of time; its growth is the object of my most earnest wishes, as it is my intimate conviction that it will offer to suffering humanity unprecedented resources for the *radical* cure of diseases deemed incurable.

J. CAPLIN, M.D.

## INTRODUCTION.

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FOR those persons who have not read my Treatise or visited my Establishment, it is requisite, I think, to give a cursory definition of the basis of my doctrine.

We call entity, the primary germ causing a disease ; the cause always preceding the effect or symptoms, so it is that the first axiom in medicine is to get rid of the cause first ; but where and how to find it is the great difficulty, and has always been the stumbling-block of the medical practitioner. This important point has occupied the members of the healing art since the first adepts have entered on this career ;—we find it in the aphorisms of Hippocrates, in the works of Galen, and, since it has been the object of speculative hypothesis and polemics, I shall not point out the erroneous ideas it has given rise to, but shall merely present a sketch of my conception on this matter, previous to the exposition of the *modus operandi* of my method, not quite as a novelty, for Raspail, in France, has proved that the introduction of inert substances and of animalcula in the body were the great sources of most diseases !

Of late, and since I have published my Treatise, Sir John Forbes has demonstrated that the interstitial extraneous matter in the living tissues, or in the blood, was one of the principal causes of all kind of disorders ; but he does not say how these substances happen to be introduced into the system, or how they may be removed. Without discussing or pointing out the

correctness of these opinions, I shall, in order to save time and space, endeavour to express at once my personal conviction on the subject, leaving to the common sense of the impartial and dispassionate reader to appreciate and to settle the question, because truth is comprehensible to every one.

My belief, then, is, that there is no disease whatever which has not either for primary or secondary cause, the presence or retention in some organ, or the whole organism, of inert, extraneous, or morbid matters ; differing, as says Dr Forbes, in their physical, chemical, and pathological characters.

For an example of the primary causes, we may take simple rheumatism, when the natural effetes of the body are merely retained in the system in consequence of a checked perspiration ; this is certainly, so to speak, a natural cause, varying in intensity according to the extent of the surface of the skin which has been affected by cold, in which case it is even susceptible of producing that horrid disease rheumatic fever. Here, nothing comes from without—it is only the retention of the used-up material which had once been part of our living tissues : nevertheless, however simple it appears, from this simple and *primary* cause I may trace almost every disease which human flesh is heir to ; and although the effetes of the body are not poisonous in their nature, it happens that by clogging the system, forming concretions, and obstructing the free play of vital functions, it becomes the very scourge of a great portion of the community. But now, if, instead of these light, soluble matters, some other ponderous substances, coming from without, are thrown into the system in the shape of mineral drugs, such as mercury, arsenic, lead, iron, &c., it will be evident to the most common understanding that the result must be still more injurious, because, notwithstanding the accredited opinion that those substances are eradicated in course of time, I do contend that such an assertion is not correct. I say that such a practice is contrary to the laws of nature and



the wisdom of the Creator, and will prove it as a mere matter of common-sense reasoning.

It will be granted, I trust, that when the first man was put on the earth, his Maker had provided for his preservation everything he might be in want of, in the state of disease as well as in the state of health. The masterpiece of the creation was not to be destroyed for need of assistance in case of any kind of accidental disease. Now, reader, observe that, in accordance with the omniscience, wisdom, and goodness of the Almighty, if the mineral substances alluded to had been destined to assuage or cure the sufferings of humanity, would it not have been a mere matter of course to have put them within the reach of man? But it was not so; they were hidden in the bowels of the earth, in the shape of ores, stones, and compounds of metals: and not only were they unknown to man, but he had not the means to get at them. In support of what I advance, I may say that, logically and philosophically, and in accordance with the known physiological laws of the organism, Nature in her wisdom has not provided the means of expelling from the body, substances which have never been intended to make part of it—substances which by their specific gravity could not be removed by the ordinary process of perspiration. All in Nature is founded on the laws of mechanics—even chemistry, all depend on the power of weight and resistance. Let us take a common example:—if we fill a drachm bottle with a solution of common salt water, representing the specific gravity of the matter of perspiration, we find that it weighs over and above the weight of the glass bottle, 91 grains; if we fill up a bottle of the same size and equal weight with calomel, we find that it weighs 260 grains,—viz., 185 grains more than the first; if we do the same with mercury, we find that it weighs as much as 1,120 grains,—viz., seventy times as much as the first bottle. Suppose now that it could be possible to determine exactly the power Nature has provided for the expulsion

of the matter contained in the perspiration power, which in the normal condition must have a standard, either increased or diminished to a certain degree in diseases, but still limited in both cases ; admitting also that the mode of medical preparation does also bring changes with regard to weight,—it is evident that by comparing the specific gravity of molecular particles, some are a great deal heavier than those contained in the salt of perspiration. Let us, therefore, make a large allowance for mercury, and suppose that, instead of weighing seventy times as much as the residues carried out of the body, it should be only fifteen ; and suppose again, for the sake of comparison, that a power of fifteen horses would be requisite for the rising of a certain load, and that the person having the direction of the work had an engine of one-horse power only,—it is evident that the thing, whatever it might be, could not be displaced.

To elucidate my view on the subject, I have submitted various medical substances in my experiments to the same test: the following are the results I have obtained.

#### TABULAR STATEMENT.

(The first row of figures indicates the general increase of weight of each substance compared with distilled water. The second row indicates the increase of the separate proportion.)

|                                           |       | GRAINS.       |   |
|-------------------------------------------|-------|---------------|---|
| Bottle filled with distilled water weighs |       |               |   |
| in addition - - - - -                     | 75    |               |   |
| Bottle saturated solution of common salt  | 91    | 16 in excess. |   |
| „ sub-acetate of copper in powder -       | 92    | 17            | „ |
| „ sulphate of magnesia „ -                | 95    | 20            | „ |
| „ sulphate of zinc „ -                    | 100   | 25            | „ |
| „ carbonate of iron „ -                   | 102   | 27            | „ |
| „ tartar emetic „ -                       | 146   | 71            | „ |
| „ acetate of lead „ -                     | 152   | 77            | „ |
| „ arsenious acid „ -                      | 206   | 131           | „ |
| „ calomel „ -                             | 260   | 185           | „ |
| „ mercury „                               | 1,195 | 1,120         | „ |

So that a saturated solution of common salt contains 16

grains more solid matter than the same quantity of distilled water ; while the same bulk of mercury contains 1,120 grains more, or seventy times as great a weight : and so the comparison may be made of the other substances enumerated in the scale.

I am well aware that the above remarks will raise an outcry from many interested in supporting the old dogmas : I know that they will say—We live in other times ; the condition in which we now live requires other means than those employed at the time of the creation ; we are in an age of progressive science, and we have unveiled those mysteries ; it was left for the intelligence of man to discover new means, and to apply them to his well-being. We answer, that man will never improve the laws of Nature ; that it is a great mistake, and a false presumption, unbecoming poor mortals. We are surrounded by convincing proofs of this. See among the Indian tribes, the inhabitants of the newly-discovered islands : they are, in common with the Europeans, subject to the variations of the weather, to accidents of every kind, and they cure the cold without antimony, and get rid of inflammatory affections without mercury. Take wild animals, from the lion to the snake : they cure themselves also, not by medicines got at the chemist's shop, but found in the great laboratory of Nature.

Some may, perhaps, argue that the substances alluded to exist in nature, and intended for man to use them on all occasions he may think they are fit for. Certainly, they are on our globe ; but we must not forget that the substances which are on the earth constitute two kingdoms,—viz., the inorganic and the organic ; and that only prepared by the hand of Nature, the inorganic world cannot be transformed by any means into organic substances. This is so true, that no one, as yet, has ever proposed to feed an animal on iron, earth, stone, or any inorganic substances : the mere idea would at once appear absurd to any one. We may build houses with stones, and husbandry instruments for tilling the fields with iron ; but we cannot build

the human edifice with either of them. If we cannot make a living being with inorganic matters, how can we repair it with them when it is diseased? Is it not a matter of common sense to repair a thing with the same materials it has been made of? Every vegetable production, in order to be healthy, requires what we may call its natural soil: a tree cannot grow out of ferruginous ore.

That which is not good for the nutrition and development of man in health, is not good for curing his diseases; and it is on this ground that I maintain that inorganic matters employed as medicines are contrary to the laws of nature, as much as if they were used as articles of food.

Next, let us inquire what becomes of them in the organism: if such substances which can neither make blood or living tissues, and cannot by any means be elaborated by the functions of the organism, nor thrown out of the body through its natural excreting power? Solve that question, reader! If it is impossible, will it not strike every one who will take the trouble to reflect one moment, that they must be deposited somewhere as dead foreign matter; first, in the interstices of the molecules of the living tissues, and accumulate in course of time, unknown to the individual, until they come to interfere with and disturb the vital functions and normal physical arrangement of the organism? Is it not evident that the slow, progressive accumulation of such matters must at some period make its appearance in some form or other, according as some unfortunate circumstance or some particular predisposition causes these deposits to fix in one or several diverse parts of the body, either in the viscera, in the muscles, in the joints, and become the sources of those occult chronic affections which appear to have no cause, no commencement, and have no end?

It may, perhaps, be asked, if I pretend to say that I would treat a derangement of the brain, a disease of the chest, a liver complaint, a nervous affection, rheumatism and paralysis,

swelling of the joints, &c., by the same means and in the same manner? I say, yes, if they are the result of the same cause,—viz., the retention of inert, extraneous, morbid matters, the radical cure depending on their removal. I say, yes, and I bring the proof in the series of cases hereafter reported and demonstrated.

Many patients have told me that they had never taken as medicines the substances found in their bath. As an answer to that question, I refer the reader to the extract I have taken from the work of Dr A. Hassall on 'The Adulteration of Food.'

As this introduction has for object to answer many questions put to me by patients, there is one that I think proper to mention. I have been struck with the fact that the deposits found in the baths are generally composed of the same substances, differing only in quantity. In a great many cases they perfectly agreed with the information I had received from the patients, and proved to be a confirmation of my opinion on the regular practice of using certain drugs in almost every case. Some patients, however, declared they had never taken as medicines some of the substances which were found in their bath:—*à priori*, I concluded that they had absorbed them in some way, without having noticed the circumstances in which they have been exposed to their influence. I had, at all events, come to the undeniable conclusion that what came out of the body was previously in it: I thought, also, that the adulteration of some articles of food might be the cause of the introduction of those deleterious matters; but I was far from supposing the dreadful practice carried on in this line, when I found in the valuable work of Dr Hassall on 'The Adulteration of Food,' that the very substances I could not account for were employed for adulterating those articles forming our daily life support! No wonder, then, that patients and their medical advisers are at a loss to trace the causes of their affections; but

let me be permitted to say, *en passant*, that by means of the Electro-Chemical Bath we find a mode of diagnosis which unveils at once the cause of the affection, and affords a prophylactic resource for preventing its development.

Now, to return to the subject, I submit to the reader the following table, extracted from the book of our learned chemist Dr Hassall, whose long experience in analytic chemistry, and his practice of microscopic examination, cannot leave any doubt on the perfect correctness of his experiments.

INJURIOUS SUBSTANCES ACTUALLY DETECTED IN ADULTERATED  
ARTICLES OF CONSUMPTION.

| SUBSTANCES.                                                                                            | ARTICLES.                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cocculus indicus                                                                                       | In beer, rum                                                                                                                                         |
| Arsenite of copper, emerald green, or Scheele's green                                                  | Coloured sugar confectionary                                                                                                                         |
| Sulphate of copper, or blue vitriol; and acetate of copper, or verdigris                               | Pickles, bottled fruits and vegetables, preserves, dried and crystallised fruits                                                                     |
| Carbonate of copper, or verditer                                                                       | Coloured sugar confectionary and tea                                                                                                                 |
| The three chromates of lead                                                                            | Custard powders, sugar confectionary, tea, and snuff                                                                                                 |
| Red oxide of lead                                                                                      | Cayenne, curry powder                                                                                                                                |
| Red ferruginous earths—as Venetian red, bole Armenian, red and yellow ochres, umber, &c.               | Red sauces—as shrimp, lobster, anchovy, and tomato sauces; and in potted meats and fish, cocoa, chicory, anchovies, annato, cheese, tea, snuffs, &c. |
| Carbonate of lead                                                                                      | Sugar confectionary                                                                                                                                  |
| Plumbago, or black lead                                                                                | In certain black and Lie teas                                                                                                                        |
| Bisulphuret of mercury, or cinnabar                                                                    | Cayenne sugar confectionary                                                                                                                          |
| Sulphate of iron                                                                                       | Re-dried tea, and in beer                                                                                                                            |
| Sulphate of copper                                                                                     | Bread, rarely; annato                                                                                                                                |
| Cayenne                                                                                                | Gin, rum, ginger, mustard                                                                                                                            |
| Gamboge                                                                                                | Sugar confectionary                                                                                                                                  |
| Chromates of potash                                                                                    | Tea and snuff                                                                                                                                        |
| The three false Brunswick greens, being mixtures of the chromates of lead and indigo, or Prussian blue | Sugar confectionary                                                                                                                                  |

| SUBSTANCES.                                                   | ARTICLES.                         |
|---------------------------------------------------------------|-----------------------------------|
| Oxychlorides of copper, or true Brunswick greens              | Sugar confectionary               |
| Orpiment, or sulphuret of arsenicum                           | Ditto                             |
| Ferrocyanide of iron, or Prussian blue                        | Ditto                             |
| Antwerp blue, or Prussian blue and chalk                      | Ditto                             |
| Indigo                                                        | Ditto                             |
| Ultramarine                                                   | Ditto                             |
| Artificial                                                    | Ditto                             |
| Hydrated sulphate of lime, mineral white, or plaster of Paris | Flour, bread, sugar confectionary |
| Alum                                                          | Bread and flour                   |
| Sulphuric acid                                                | Vinegar, gin                      |
| Bronze powders, or alloys of copper and zinc                  | Sugar confectionary               |

Now, with evidence such as the above, it is impossible to contend that the use of such a variety of injurious, and even poisonous substances is unattended with danger, and that adulteration does not affect the public health. It may so happen, and it doubtless does sometimes occur, that the same person, in the course of a single day, receives into his stomach some eight or ten of the articles above enumerated. Thus, with the potted meats and fish, anchovies, red sauces, or cayenne, taken at breakfast, he would consume more or less bole Armenian, Venetian red, red lead, or even bisulphuret of mercury. At dinner, with his curry or cayenne, he would run the chances of a second dose of lead or mercury; with the pickles, bottled fruits, and vegetables, he would be nearly sure to have copper administered to him; while, if he partook of *bombons* at dessert, there is no telling what number of poisonous pigments he might consume. Again, in his tea, of mixed or green, he would certainly not escape without the administration of a little Prussian blue, and it might be worse things: if he were a snuff-taker, he would be pretty sure to be

putting up his nostrils, from time to time, small quantities of either some ferruginous earth, bichromate of potash, chromate of lead, or red lead: finally, if he indulged himself with a glass of grog before going to bed, he would incur the risk of having the coats of his stomach burned and irritated with tincture of capsicum or essence of cayenne. If an invalid, his condition would be still worse; for then, in all probability, he would be deprived of much of the benefit of the skill of his physician, through the dilution and sophistication to which the remedies administered for his relief were subjected. This is no fanciful or exaggerated picture, but one based upon the results derived from the repeated analysis of different articles as furnished to the consumer.

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#### TEA AND ITS ADULTERATIONS.

In the following matter we refer to the odious practice of adulterating Tea—that important article of consumption, which is considered as indispensable to the well-being of the English nation. A great many will be surprised to find that when they flatter themselves they are enjoying what they call a refreshing cup of tea, they do not take tea at all, and that they have not, perhaps, taken any in the course of their lives, but have taken poison all the time. Let them reflect on the pernicious effect of such a spurious article taken every morning on an empty stomach, and repeated three or four times a day, and be surprised that children are pale and weak, that young mothers are enervated and complain of gastrologia; wonder now that in course of time we find acute affections, diseases apparently without cause, when inorganic poisonous matters have been accumulating for a long period of time in our organism.

In the following extracts from Dr Hassall's work, he alludes to the manufacturing process in practice in England—a fact that is generally known.

“A gentleman assured me that a friend of his a short time



since happened, though quite unintentionally on his part, to walk into a private room connected with the establishment of a wholesale tea-dealer, and there he saw the people actually at work converting the black tea into green. The proprietor soon discovered his presence in the room, and before him, in no very measured terms, severely reprimanded the workmen for having permitted a stranger to enter."

"Carbonate of copper occurred to the extent of 35 per cent. in some tea which was seized in London by the Excise in 1843.

"The tea into the facing of which the chromates of potash entered was seized in Manchester in 1845.

"The following articles were likewise seized on the premises, evidently intended to be used in the colouring of adulterated tea:—A mixture of chromate of lead, carbonate of lime, and arsenite of copper.

"In the year 1843, there were many cases of re-dried tea-leaves, which were prosecuted with vigour by this board, and the result was, so far as we could ascertain at the time, the suppression of the trade. It was supposed, in 1843, that there were eight manufactories for the purpose of re-drying exhausted leaves in London alone, and several besides in various parts of the country. The practice pursued was as follows:—Persons were employed to buy up the exhausted leaves at hotels, coffee-houses, and other places, at 2½d. and 3d. per pound. These were taken to the factories, mixed with a solution of gum, and re-dried. After this, the dried leaves, if for black tea, were mixed with rose pink and black lead, to face them, as it is termed by the trade.

"These fabricated teas are seldom sold alone to the public, but are used for mixing with more genuine teas."

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"Edward South, and Louisa, his wife, were placed at the bar, before Mr. Combe, charged by Mr. Inspector Brennan, of the G

division, with being concerned in the manufacture of spurious tea. It appeared from the statement of the inspector, that in consequence of information that the prisoners and others were in the habit of carrying on an extensive traffic in manufacturing spurious tea on the premises situate 27½ Clerkenwell-close, Clerkenwell-green, on Saturday evening, at about seven o'clock, the witness, in company with Sergeant Cole, proceeded to the house, where they found the prisoners in an apartment busily engaged in the manufacture of spurious tea. There was an extensive furnace, before which was suspended an iron pan containing sloe-leaves and tea-leaves, which they were in the habit of purchasing from coffee-shop keepers after being used. On searching the place, they found an immense quantity of used tea, bay-leaves, and every description of spurious ingredients for the purpose of manufacturing illicit tea, and they were mixed with solution of gum and a quantity of copperas. The heat of the place was so excessive that the officers could scarcely remain in it, but the prisoners did not seem at all oppressed by it.

“A mixture of arsenite of copper, carbonate of magnesia, and venetian red.

“In 1848, other seizures of adulterated green tea occurred.

“In some instances the colouring matters employed to face the tea have amounted to seven, eight, and even nine per cent.

“*Adulteration with Exhausted Tea-leaves.*—At other times exhausted tea-leaves are treated with sulphate of iron, catechu, and gum, to give them colour, astringency, and gloss, and sold again as black tea, or, when coloured, as green tea.

“*That several varieties of a spurious caper or black gunpowder are prepared, which consist of tea-dust, and sometimes the dust of other leaves, and sand, made up into little masses with gum, and glazed with plumbago, Prussian blue, and turmeric powder.* In some cases these imitations are sold separately, but most

frequently they are used to mix with and adulterate the better qualities of caper—viz, those that are made of tea faced with plumbago only.

“With respect to *green tea* the principal conclusions are—

“That these teas, with the exception of a few of British growth and manufacture from *Assam*, are *invariably adulterated*—that is to say, are glazed with colouring matters of different kinds.

“Thus, in this country there is really no such thing as a green tea—that is, a tea which possesses a natural green hue.

“*That the colouring matters used are in general Prussian blue, indigo, turmeric powder, sulphate of lime, and China clay*; other ingredients being sometimes, but not frequently, employed.

“*That the substances employed in the colouring are in many cases very much more objectionable and injurious than those used by the Chinese, being sometimes highly poisonous.*

“*That it is no uncommon thing for tea, both black and green, to be fabricated from various British leaves—leaves not those of tea, and possessing no properties in common with the leaves of that plant.*

“*That black Chulan and Lie tea, when coloured, have been known to be employed by our own dealers and grocers for the adulteration of green tea.*

“Many families who can afford to buy a great quantity of this article, think that, by buying tea at the Docks, they are sure to have it genuine. Let them be aware that the villany of those adulterators is not confined to the poor classes; that the English manufacturers of tea are clever enough to pack it in Chinese boxes, and to ship them; when, a short time after, they are brought back and landed at the Docks, where the rich buy, at a great price, the China tea which has been manufactured perhaps at a very short distance from their own dwellings, and partake with the poor the deleterious effect of their accustomed poisonous beverage.”

## COFFEE ADULTERATIONS.

"*Adulteration with Roasted Grain, Roots, Acorns, and Sawdust.*—Thus it is not unfrequently adulterated with *roasted grain*, principally *wheat*, and also with *scorched peas* and *beans* ground into powder. Less commonly *roasted carrots*, *mangold-wurzel*, *rye*, and *acorns* have been employed, and even woody fibre or *sawdust*, especially *mahogany sawdust*. We have ourselves detected sawdust on two occasions, and the other substances mentioned in several instances.

"Other articles which have been forwarded to us, and which it has been stated have been used in the adulteration of coffee, are, first, an article termed '*coffina*,' *oak-bark tan*, *exhausted tan* (termed *croats*), and *baked horses' livers*."

## CHICORY AND ITS ADULTERATIONS.

"Lastly, Messrs Graham and Stenhouse have examined the ash of coffee and chicory, and certain other adulterants, with a view to discover distinctive characters. The principal differences in the composition of the ash are shown by the figures given below:—

|                     | In Coffee Ash. | In Chicory Ash. |
|---------------------|----------------|-----------------|
| Silica and sand -   |                | 10·69 to 35·85  |
| Carbonic acid -     | 14·92          | 1·78 to 3·19    |
| Sesquioxide of iron | 0·44 to 0·98   | 3·13 to 5·32    |
| Chlorine - -        | 0·26 to 1·11   | 3·28 to 4·93    |

"Extending the comparison further, however, we find in a variety of other vegetable substances, even of those used in the adulteration of chicory and coffee, an excess over the quantities usually contained in coffee of all the constituents referred to above. Some of the substances in which excess of *silica* occurs have already been mentioned. *Carbonic acid* occurs in nearly the same proportion in *acorns*, *parsnip*, *beet-root*, *carrot*, and *turnip*, as in coffee; the quantity of *chlorine*

approximates to chicory in acorns, parsnip, carrot, turnip, and dandelion roots ; lastly, the *iron* is excessive in dandelion and beet-root, and would be so no doubt in carrot and parsnip roots imperfectly cleansed and freed from dirt. Besides, all conclusions based upon an excess of iron, except the general one that adulteration with some substance containing an excess of that metal has been practised, are precluded by the fact that chicory and other roots employed to sophisticate coffee are themselves often adulterated with red ferruginous earths, as Venetian red and redden, containing frequently excess of carbonic acid, lime, iron, and silica.

"The ash of coffee adulterated with any of the cereales, and also to a less extent with lupins, peas, and beans, is, of course, distinguished by the large amount of phosphoric acid present. In coffee, the phosphoric acid may be set down at about ten per cent. ; in chicory, it varies from 6.85 to 11.27 ; in lupins, it is usually about twenty-five per cent. ; and in maize, forty-four per cent."

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#### COCOA AND ITS ADULTERATIONS.

"Chocolate is adulterated with flour, potato starch, and sugar, together with cocoa-nut oil, lard, or even tallow. Even the so-called finest chocolate is made up with clarified mutton suet and common sugar, together with ordinary cocoa.

"Moreover, when chocolate has a kind of cheesy taste, animal fat has been added ; and when very rancid, either vegetable oil or even the seeds themselves have been employed in the sophistication."

"The mineral substances employed in the making up of chocolate are some of the ochres, both red and yellow, together with minium (red lead), vermilion, sulphate of lime, chalk, &c. Chocolate so adulterated, more especially with the preparations of lead, are highly injurious : it is, however, only the inferior chocolates that are thus adulterated."

From the work of Normandy we extract the following remarks:—

“Unfortunately, however, many of the preparations of the cocoa-nut sold under the name of chocolate, of cocoa flakes, and of chocolate powder, consist of a most disgusting mixture, of bad or musty cocoa-nuts with their shells, coarse sugar of the very lowest quality, ground with potato starch, old sea biscuits, coarse branny flour, animal fat (generally tallow, or even greaves). I have known cocoa powder made of potato starch, moistened with a decoction of cocoa-nut shells and sweetened with treacle; chocolate made of the same materials, with the additions of tallow and ochre. I have also met with chocolate in which brick-dust or red ochre had been introduced to the extent of twelve per cent.; another sample contained twenty-two per cent. of peroxide of iron, the rest being starch, cocoa-nuts with their shells, and tallow. Messrs Jules Garnier and Harel assert that cinnabar and red lead have been found in certain samples of chocolate, and that serious accidents had been caused by that diabolical adulteration.”

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Mr George Phillips, in evidence before the Parliament Committee on adulteration, states,—

“In one case, where I succeeded in getting the proportions from a manufacturer, of what he called his best soluble cocoa, there were, in his own language, cocoa forty-two, white and red fifty-two. The cocoa represents the nut; the lump, the sugar; and the white is starch;—the red, oxide of iron to colour it. The percentage of cocoa in that sample would be thirty per cent., and that was stated by the manufacturer to be his *best soluble cocoa*.” If that was his best cocoa, what, we wonder, was the composition of his worst?

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#### GIN AND ITS ADULTERATIONS.

“It is impossible to conceive more scandalous adulterations

of gin or other spirits than those by *cayenne pepper* or *grains of paradise*, for they are almost equally hot and pungent. The introduction into the stomach of raw spirits is sufficiently destructive to health of itself; but the addition of such powerful and acrid substances as cayenne and grains of paradise to spirits, forms a compound which no human stomach or system, however strong, can long withstand."

Dr Taylor remarks of fusil oil, "that in small quantities it produces intoxication. I have experienced the effects of the vapour, and found them to be giddiness, accompanied with a feeling of suffocation and a sense of falling. Headache followed, which lasted for half an hour."

"Two drachms of the oil killed a rabbit in two hours, three drachms in an hour, half an ounce in a quarter of an hour, and one ounce in four minutes."

"Much of the unwholesomeness of spirit imperfectly rectified arises from its contamination with fusil oil."

#### ALE AND ITS ADULTERATIONS.

"One gallon of beer, to which a grain of strychnia had been purposely added, was evaporated to an extract; this was boiled for nearly an hour in a mixture of ether and alcohol; the solution, after filtration, was evaporated, and the residue, of a soft consistence, was administered as a pill to a small rabbit. In the course of two minutes the animal became affected with convulsive twitchings; these were almost immediately succeeded by a paroxysm of convulsions, in which the animal threw himself on his side, the head and neck being thrown back, the hind and fore legs extended and drawn backwards. The first paroxysm was rapidly followed by others, and in less than five minutes after the administration of the pill the rabbit was dead, it having exhibited the peculiar symptoms which characterise poisoning by strychnia."

In the foregoing extracts, I have merely pointed to those common articles of food on which we particularly depend for our subsistence. Should I follow up the adulteration of wine, porter, vinegar, preserves, pickles, sugar, &c., I could make a little volume. What I wanted to advert to, is only to prove that we are constantly, more or less, under the influence of poisons;—first, in our food, while we think we are in good health; next, by taking remedies of the same character: besides which, we are living amidst deleterious agents of every kind, all of a poisonous nature. The press and medical papers have teemed for some time past with accidents produced by arsenic in different forms. Death has been produced by the dust coming from the green paper decorating our apartments; ladies have been followed in the ball-room by the luxuriant poison surmounting their heads in the shape of flowers, from which the dust has been shaken amongst the joyful guests, breathed in the lungs, and absorbed through the skin. At the home-fireside we are no safer; the arsenic and copper contained in our coals propagating the poisonous agent in the air of our rooms. I read in the ‘Manchester Guardian,’ that Dr Angus Smith found this metal in thirteen out of fifteen specimens of Lancashire coals that he examined; a fact which has a very distinct bearing on our sanitary knowledge, as we must now add arsenic to the number of impurities in the atmosphere of our large towns. On the other hand, we daily swallow arsenic in our mutton flesh; a chemical preparation of that metal being used for washing sheep, in order to get rid of the vermin which spoils their fleece. About twelve months ago, a farmer lost 147 head of cattle through this operation, the arsenical preparation being too strong; he got a verdict for 700*l.* against the chemist who sold the preparation. Those dangerous methods pass unobserved before our eyes, while the power of old routine predominates. One moment’s reflection would be sufficient to warn us of the danger, as it must be evident to every reflecting



mind that the skin of the animal is an absorbent organ, through which the poison is infiltrated in his flesh. Formerly, mercury was employed for the same object, and shepherds were mercurialised with their flocks; and although it has been found that a solution of aloes would advantageously replace the use of poisonous minerals without danger to the health of the beast, or to those who perform the operation of washing, and also with advantage to the consumers, still the same routine is persevered in. What unfortunate mortals are the citizens of large towns! Even the beverage of man, water—that great, indispensable, and natural solvent of our food—is contaminated.

I read the following article in the same paper :—

“At the Meeting of the Manchester Literary and Philosophic Society recently, Dr Crace Calvert stated, he had been engaged for the last few months in investigating the action of the Manchester Waterworks water on various kinds of leaden pipes, and that he was arriving at such results as would show the necessity for serious consideration on the part of the inhabitants of that city with respect to the evils arising from the introduction of the water into their dwellings through leaden pipes. Being requested by the Chairman to give his opinion, Dr Angus Smith said that he had never found any Manchester water which had passed through lead pipes to be entirely free from lead. At the same time, the quantity is practically equal to nothing; yet there is a great difficulty in knowing what is hurtful: water with as little as one-hundredth of a grain of oxide of lead per gallon was said to have produced lead paralysis, whereas it was considered generally not to be hurtful until it contained one-fortieth of a grain. We have little idea of the extreme susceptibility of some persons, and it is better to avoid lead as much as possible. Long lead pipes should be avoided, and lead cisterns are extremely dangerous, especially with soft waters, including Manchester water. Soft water dissolves lead more readily than many hard waters; and if the

hardness be due only to the earthy carbonates, the lead becomes coated instead of being dissolved. But if the hardness be due to the chlorides or nitrates, the water dissolves lead much more rapidly than pure water. It is a mistake to suppose that pure water dissolves lead more than all impure waters. Some very pure natural waters dissolve lead simply because they contain chlorides, although in small quantities; and some lead pipes, too, are much more easily affected than others. He had spent a long time in obtaining a suitable coating for lead to protect the water from its action, and had not quite succeeded; but he had given his results to a friend who had gone further, and having obtained great success, patented the process. However, he was told that no one would buy lead pipes of the kind, as they cost half-a-crown per cwt. more than the ordinary ones. People complain of evils from which they refuse to escape. It is, however, better to avoid lead than to avoid pure water."

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## BATHING.

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We shall now say a few words on bathing. The first discovery of the bath is attributed to the enchantress Circe. It is reported that this magician used to put old people in a medical bath of her creation, out of which they came restored to a state of youthfulness and beauty. Since that fabulous tale, which has been the origin of the idea of bathing, the Greeks introduced their Thermal Baths, which came into great repute; they were transferred to Rome, where they became public institutions; then they were adopted by the Turks, and now they are become the great fashion in chilly England. We find clever advocates of these new old things—able writers who have tried them in their travels; others who have never left England speak with enthusiasm of their virtue, and the Roman Baths are now transplanted from Rome and the East to the streets of London

and provincial towns, being as rational as attempting the cultivation of exotics in the open fields in England. They are to cure everything—to restore freshness to the complexion and vigour to the invalid: witness the ancient Romans. I have assisted at lectures on the subject, and read well-written pamphlets in behalf of this system, supported by physiological observations: the writers have only forgotten to say, that at the time the Thermal Baths were flourishing at Rome, the practice of medicine had fallen into such discredit that none but slaves were permitted to assist the sick; consequently, as the slaves were neither scientific men nor pharmacologists, they had not the chance of administering the drugs which are so liberally used in England.

If we consider how those baths were used in Rome at that time, we shall find that they certainly were beneficial as prophylactic means, being used by healthy, robust people: young children also were then in the habit of taking the bath, and continued to do so all their lives, which was certainly a good preventive against diseases, by keeping up the functions of the skin, exciting the circulation, promoting all the secretions, and throwing out the so-called impurities of the blood; all being diffusible and soluble matters, such as natural effluvia of the body, were removed, and the unction and friction after taking the bath also contributed much in the beneficial results of that practice. But we cannot certainly reap the same advantages for invalids saturated with mercury, iodide of potassium, arsenic, lead, and such like: whilst the water of the blood is vapourised from the centre of the body towards its periphery, it does not decompose the concremented matter lodged in the deepest parts of the parenchyma or the tissues; and could that be done, the watery fluid becomes too much rarified to convey through the pores of the skin the ponderous matter located in the system. I have tried them (the Roman Baths), and consider them anything but a luxury; it was some days before I recovered my equilibrium. I have advised several of my patients who had

been urged by their friends to give them a trial to do so, and they came back promising not to be tempted any more.

It is evident that the frequent use of the Turkish Bath must prove injurious, for the following reasons :—The blood is composed of seven-eighths of water, which is called serum : that quantity of water has for object to keep up the liquidity of the blood, so as to permit it to circulate freely in the smallest blood-vessels, called capillaries. If more serum than can be supplied or replenished is abstracted from the blood, it is evident that it must be deprived of its menstruum, and lose its normal and indispensable fluidity. The patient suffering from simple rheumatism has, by taking this bath, the chance of being relieved for the time ; but if he continues, he is likely to get a great deal worse after ; the plethoric incur the risk of having a determination of blood to the head ; the paralytic have no chance at all. Those labouring from the retention of minerals in the system, may hope to see them concreted more firmly in those parts where they have been deposited.

I must, however, say that, for the healthy and robust, these baths taken occasionally may prove very advantageous for maintaining them in a good, healthy condition.

Now, in opposition to the above system, I shall demonstrate the *modus operandi* of mine, the Electro-Chemical Bath, taking the reader for judge in the comparison, and referring to the proofs elucidated in the cases reported hereafter.

The Electro-Chemical Bath is so called because the patient is immersed in a liquid ; but it is not as a bath that it acts as a therapeutic means—the water in which the patient is immersed is only for the purpose of making the skin permeable to the passage of electricity when it passes from within to without ; the skin when dried being a bad conductor of electricity, the real agent therefore is the electric fluid, the kind of electricity employed in the operation being the electricity of decomposition.

As soon as the patient is in the bath, he is saturated with the electric fluid, which passes through all the interstices of the molecules the body is composed of, penetrates in the same way into every organ without distinction: when so diffused, what does electricity produce? According to the virtue it is endowed with by Nature herself, who is the manufacturer, it decomposes everything which is *foreign* to the organism, the vital parts being protected by the law of conservation belonging to every organic production:—such matters, whatever they may be, either extraneous or morbid, are reduced to their atomic condition,—such is the primary performance of the electric fluid;—next, as electricity is only passing through the body and forms what is called a current, it carries with the current through every kind of tissue, and ultimately through the cutis or pores of the skin, a portion of the matter, sufficiently decomposed and reduced, to be conveyed into the bath;—there the soluble matters, viz., those forming the matter of perspiration, are dissolved in the water, whilst the substances which have a metallic base are fixed and plated on the copper, in the same way and according to the same law and principle (only reversed) as the process of electro-plating. The reason why, is that the laws of Nature are immutable, and as it is a natural phenomenon, it produces on every occasion the same effect when under the same conditions: if therefore, conformably with my first premises, disease is the result of the retention of inorganic or morbid matter in the economy, the cure must be their removal, and it is what effectually takes place.

I need scarcely say that the *modus operandi* of my method is severely scrutinised in every point. It has often been questioned how, if electricity has the power of removing extraneous substances from the body, why, by the same rule, it should not at the same time remove also some of the component parts of the tissues, or of the substances belonging to the organism—such, for example, as the iron in the blood? We find an answer

to this question in the laws which control and regulate chemical operations. Every one is acquainted with the term saturation, but not always perfectly so with the nature of its phenomenon. As we wish to be clear and well understood, we shall try to make it comprehensible to every capacity by a simple and common example :—If a certain quantity either of salt or of sugar is put in an insufficient quantity of water, the whole of the substance that the liquid can dissolve is what constitutes the state of saturation ; the remaining portion of the salt or sugar will fall to the bottom of the vessel and form a deposit, which cannot be dissolved : therefore, a saturation, whatever be its menstruum, is always limited to the solvent power of the menstruum, and cannot dissolve a grain more than a certain limit ; this phenomenon depending on natural laws ;—this fact stands good on all occasions,—in the solution of resins or gums, in alcohol, of earths and minerals, in acids, in the menstrea of the organism, in and out of the body ;—this immutable law is always the same.

Now, we have liquids which will contain in solution various substances in determinate quantity ;—such is the blood ; each substance enters into its composition, is numbered, and neither more nor less than is fit by the natural law pertaining to its composition :—iron is but a small fraction of the elements of the blood, and should not contain more, in order to constitute the compound saturation which is in suspension in the liquor sanguinis. If electricity had the power of changing the normal composition of the blood, it would at once destroy life ; and we have the incontestable proof that it is not the case. However, it is a fact that iron is often found as a deposit in the bath ;—how is that ? where does it come from ? This is the great question, and is easily accounted for. Whenever it happens that iron is given medicinally, not prepared by the hand of Nature, but in a crude state, so to speak, and in a greater quantity than the mixture of the blood will permit, it is then in excess, and, con-

formably to the laws of the organism, it is deposited in the tissues, and subsequently removed as overplus and an extraneous substance, by electricity, from the molecular interstices of the living tissues.

We may say as much of all the substances entering into the elements of the blood : as soon as one of them preponderates in undue quantity, the blood is no longer homogeneous or in its normal condition ; it is contaminated, in the same way as when we breathe back the carbonic acid exhaled from our lungs.

Now, if the effetes of the body,—namely, the old, used-up material,—becomes poisonous, being converted into inert matters ; if the carbonic acid manufactured in the organism is a deadly poison—what must be the substances which were never intended to be thrown into the organism ? Mercury, for example, is administered in such a form as to circulate in the blood ; but it is not one of its elements, and cannot remain in the torrent of the circulation :—when it comes to the extremity of the arterial capillaries, it is discharged or deposited in the tissues, in the same way as the plastic substance of the blood is, which supplies the nutrition of the organism ; but it is neither an assimilable or nutritive material, but a destructive substance, accumulating in various parts of the body, destroying the connection and adhesiveness of the living tissues, thereby giving rise to those formidable diseases which remain incurable as long as mercury or any similar substance is not eradicated from the system.

I trust the above illustration will be sufficient to elucidate and answer the question alluded to above.

With regard to the elimination or removal of the substances deposited in the insertion of our tissues, it will be, perhaps, better understood by the following trivial comparison:—If we suppose a piece of cloth, starched, dressed, or soiled by matter, deposited between the woof forming the tissues, and consequently extraneous and foreign to the texture, we may get rid of it

by washing. What is removed and taken out? The foreign matter, and not the tissues the stuff is made of.

A more extended demonstration would require too much space to be carried further, and very likely would scarcely be understood by those unacquainted with physiological laws ; but I propose, in my next treatise, as well as in the course of lectures I am about to deliver, to give the subject more development.

The presumption generally existing amongst medical practitioners of removing mercury—that ponderous matter—by another similar substance, could no longer be entertained when we reflect on its impossibility. The medical man must see with the eyes of the mind what takes place in the inside of the body ; he must follow all the phases of the operation there performed, and be able to account for the *modus operandi*, or else he is working in the dark, and justifies what has been expressed by some of our great philosophers—viz., “ that the practice of medicine was nothing else but a series of experiments.”

Let us ask, then, firstly, How might the action of mercury, as a therapeutic agent, be explained? Secondly, How can it be eradicated from the body whenever it has been introduced into it?

With regard to the first question, although I have procured for that purpose a great many works treating of the mode of employing mercury, I have not found a single definition to explain *how* and *why* this metal has the power of curing diseases. I have before demonstrated the virtue of electricity, and the command we have over it. We know how and when the subtle fluid enters the body ; what it does in the body ; how we can give it the direction we think proper ; how we can either increase or decrease its power at pleasure, or stop it suddenly ; how instantaneous is its action ; how correctly it may be governed, and ultimately the advantages it possesses over any other therapeutic agent—viz., to do the work without leaving



behind it any kind of material substances or any subsequent symptoms.

Not having found any clue as to the action of mercury in the works of those authors who advocate its virtue, I have tried to account for its effects in the same way as I have done with electricity—viz., to consider its natural virtue, and to follow the effects and results of its capacity when it is thrown into the organism. This metal, as every one knows, is the best conductor of caloric, as is proved by the thermometer and barometer, which indicate the most minute changes in the temperature; this capacity of mercury is its special natural virtue, and acts as such—viz., as the best conductor of caloric in all circumstances: thus, when thrown into the system, it circulates incessantly with the blood, passes with it in every part of the organism. Where there exists an inflammation, mercury takes up a portion of the extra caloric, and distributes it in the torrent of the circulation, thereby restoring the equilibrium of the general heat. So far so good: but at the least change in the lowering of the temperature, mercury contracts; the circulation becomes languid; particles of mercury meet together; small globules unite and acquire a greater power of attraction for some other molecules, forming a greater bulk, which, by its specific gravity, slides between the tissues and locates itself either under the ligaments of the articulations, or in some compact parenchyma, such as the liver or other gland, or reaches the bones, with which it incorporates itself, and then, when so fixed, it remains still the best conductor of caloric. In that capacity it attracts the caloric of the tissues it is surrounded by, and forms a focus of inflammation in one part, while it deprives the others of their quantum of heat; the bones being destroyed by inflammation, while the organic tissues surrounding the inflamed focus become gangrenous in consequence of being deprived of their natural vital heat. Such are the destructive results of that dangerous metal, so largely and imprudently used in almost every disease, for relieving

the simple intestinal derangement of the baba. (See the case of Master King, in Index, as well as the chronic diseases of old age.)

Next, the favourite drug for relieving the baneful effects of mercury is iodide of potassium. Who can explain the way by which this metalloid can remove mercury? Can it pass under the mercurial deposits, and interpose itself between it and the circumvolving tissues? Can it attract and displace or annihilate it? Iodine and mercury are of the same character, viz., hypostenising or lowering: they may for a certain time diminish the anguish of the sufferer while taken by the patient, by increasing the disturbance on a larger space, as does mercury itself in some circumstances; but as soon as it is not replenished, the sufferer feels worse than before, and is really so, because the second drug is an addition to the deleterious effects of the first.

I am carried further than I intended in this digression, which, after all, is but a very cursory illustration of the subject. I trust, however, that it will be sufficient to convey my meaning to the reader, and enable him to understand the subject, and put him on his guard against mercurial and other similar poisons.

Can we do without mercury? I believe so; but if routine prevails—if mercury in its various forms is more rapid in its action, what remains to be done? Is it not to find the means to extract it from the organism? The following cases will prove how it is performed by means of the Electro-Chemical Bath.

We have demonstrated the nature of the drug and its remedy: I may add that one of the properties of mercury is also to be the best conductor of electricity; in which case, in consequence of their affinity, they readily meet together. I have demonstrated the ravages produced by the natural property of the mineral, and also the effect produced by that of electricity, both acting according to the properties they are endowed with by Nature: the question is, therefore, only to know which of the two is the most powerful. The first one—mercury—

is naturally the conductor of caloric; but electricity is caloric itself, decomposing and fusing everything—not only ordinary metals, but platinum, the most refractory of them, and even diamond! It is evident that those who deny the power of electricity as a therapeutic agent, are those who are not acquainted with its phenomena.

It is a common occurrence, that patients who have heard of the Electro-Chemical Bath are not inclined to try it, before consulting their medical adviser. At first sight it appears very rational, to do so: a medical man must be a man of science; he ought also, if he is imbued with his mission, to be a man of integrity, and it cannot be disputed that those practising the healing art have a right to one of the first rank in the social scale: it is therefore very far from my wish to disparage a profession of which I am proud of calling myself a member; but as the study of electricity is not as yet a part of the programme of medical studies, no one can expect a man to be thoroughly acquainted with a branch of knowledge out of his profession. It would not occur to the mind of any one to call on a member of the medical profession to pass his judgment on the arts of music, architecture, painting and sculpture, or even to expect that he should be a Faraday, a Liebig, or a Linnæus: I wish therefore to be well understood with regard to the kind of criticism I have made in these lines, as alluding only to the practice of certain systems, without intending, in any way, any kind of personality to the members of the profession, but on the grounds I have mentioned, viz., that the public has no right to expect from any man to know what he has never learnt. I venture to claim in favour of my system twenty years' practice in the branch of medical electricity.

I have already stated in the foregoing pages, that in order to find if the *modus operandi* of mercury as a therapeutic agent had been described by any author, I had procured every work I could treating on this subject. A new one has recently been

published by Dr S. O. Habershon, Fellow of the Royal College of Physicians, Senior Assistant-Physician and Lecturer on Materia Medica and Therapeutics at Guy's Hospital, late Physician to the City Dispensary, &c., 'On the Injurious Effects of Mercury in the Treatment of Diseases.'

The title of that gentleman as a Professor of Materia Medica and Therapeutics, proves that he is better qualified than a great many other medical gentlemen for the task he has undertaken; I consequently thought that his opinion on the baneful effects of mercury and its misappli-ance would be acceptable to the reader, as it embodies more matter at once than all the works I had previously read: I therefore give the whole of the first chapter of this valuable work for the consideration of the reader. This part treats of the injurious effects of mercury in a masterly manner; but with regard to its *modus operandi*, I found the same discrepancy that exists in all other works. He gives the opinion of several authorities, but none, I venture to say, which are founded on a rational deduction. Several of the quotations allude to mercury as being at the same time sedative and stimulant; two qualities perfectly incompatible, as a matter of course, as it is to the proposition that fire and ice possess the same qualities. It is the common sense of the thing we want, and not hypothesis bearing on fancies.

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**"ON THE INJURIOUS EFFECTS OF MERCURY IN THE TREATMENT OF DISEASE.**—Amongst the early Greek writers on medicine, we do not find any mention of the use of mercury, either in its external or internal application; but about the end of the ninth century it was employed externally by one of the most celebrated of the Arabian physicians, Rhazes (A.D. 852—932), at first, in the treatment of leprosy. To Paracelsus, an astrologist and arrogant pretender, is due the internal administration of mercury in the treatment of syphilis, about the beginning of the sixteenth century (1493—1541); afterwards, both internally

and by fumigation, its use became gradually more extensive, till we find Boerhaave (1710), in his aphorisms, measuring the beneficial effect by the pints of saliva poured from the mouth; in 1717, Dr Turner introduced the internal use of corrosive sublimate. Terrible must have been the effect produced by the large doses and long-continued use of mercury in the treatment of disease; and we find these effects graphically detailed by the authors of the last and of the present century. In 1804, Dr ✓ Hamilton introduced the use of calomel with antimony and opium in so-called inflammatory disease; and since that time, although given with greater caution and less dire results, its use has been more extensive and its application more general.

“For more than half a century, the preparations of mercury have been employed in the manner suggested by Dr Hamilton, and at length it is used with most unsparing hand; our text-books recommend mercury in almost every disease, and the inexperienced unheeding follow the dictum: in acute and in chronic disease, in so-called inflammatory and non-inflammatory ailment—in abnormal conditions of the nervous, respiratory, circulatory or digestive systems—in renal or cutaneous disease, in blood diseases or in injuries, mercury finds its advocates, and has been given as if it were the panacea of human disease; and although, at the present day, many of the notions of the past have disappeared, as that excessive salivation is necessary to produce the desired effect, and that this may be measured by the quantity of saliva excreted, still, in the practice of many, it is given in such a mode, that salivation is produced, and the patient rendered anæmic and wretched; or, where more cautiously administered, it is held in such regard, from the prejudices of practice and education, that many give it in instances where, we think, it is the means of aggravating the disease, increasing abnormal action, retarding recovery, and in not a few cases of hastening a fatal termination. The preparations of mercury are valuable agents in the treatment of disease,

but are agents of evil as well as of good ; and we propose to consider some of those instances in which they appear to do injury, or are not required, though frequently used ; and afterwards, to enumerate those special classes of disease where they are apparently of service. The reckless use of such powerful means is, we believe, one reason of the disrespect, if not contempt, with which many regard the practice of medicine ; and at the present day, this cause, as much as any other, has fostered those false notions and modes of practice which have so successfully confronted the scientific exercise of medical skill. The internal use of mercury is regarded by many persons as an essential element in the prescription of a physician ; and to avoid it, they seek out those whose interest it is to encourage these ideas ; and most truly, the remembrance of the miseries of salivation, and the protracted months of exhaustion consequent upon it, is an effectual recommendation to treatment, which allows disease generally to take its own course. Many of the abnormal conditions which are observed in disease have a tendency to subside, and the functions of life spontaneously to assume their wonted action ; but if, in such deviations from health, mercury be at once given and continued, an additional source of irritation is produced ; and the patient, having recovered from his own, has also to struggle against another disease, the effect of the mercury, given with a well-intentioned purpose, but not beneficial in its result.

“When preparations of mercury are administered, they rapidly become absorbed, and are conveyed to all the glandular organs of the body ; these are especially stimulated to increased action, either from special and direct influence, or, possibly, from abnormal excretory action to free the system of their presence : however this may be, the glands generally are affected. This effect is especially observed in the salivary glands, and their profuse action constitutes salivation ; in which there is a coppery taste in the mouth, the breath becomes offensive, the

gums red, swollen, and ulcerated, at first along the margin in contact with the teeth. The whole of the mucous membranes are similarly acted upon ; the alimentary canal is so affected that additional mucus is poured out, and fluid evacuations from the bowels are the result : this purgative action is, however, increased by the secretions from the liver and pancreas being rendered more abundant. A like effect, but in less degree, is produced on the kidneys and on the bladder, on the mucous membrane of the respiratory passages, and on the cutaneous surface. There is, however, another system of glands, those connected with the lymphatic system of vessels, the mesenteric and general lymphatic glands, the spleen, &c. ; and many facts warrant the belief that these are also affected by the absorbed mercury. The proper elaboration of the chyle is most important in the formation of red and normal blood, and in the continuance of healthy nutrition. After mercury has been taken for some time, the general nutrition of the body is impaired, the blood becomes darker, the coagulation of its fibrin less firm, and the proportionate quantity of serum increased ; the red corpuscles are diminished, and the patient becomes thin and blanched. His tissues lose their proper tone, his muscles become flaccid, his energy diminished, and his nervous system enfeebled. Mercury 'increases waste, whilst the supplies are stopped ;'\* and effusions into serous cavities and abnormal deposits sometimes become rapidly absorbed under its influence. It is this absorption of effused product which is generally the thing sought after ; but the question naturally arises, Can this effect be attained by other and less injurious means ? Does it not sometimes, at least, happen that the diseased product becomes more abundant in quantity and less organised in character from the enfeebled nutritive action consequent on the mercury ? We have ample proof that such may be the case.

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\* Dunglison.

"The condition of the system to which we have just referred, is in itself proof that mercurial preparations are absorbed into the blood ; but it has also been extracted from the blood, and has been found in the urine and in the saliva ;\* it has been detected in exhalations from the skin, as in the black deposit found on it after sulphur baths, used subsequently to mercurial salivation ;† in the discharge from ulcers or abscesses ;‡ and many have stated that it may be demonstrated in the bones after death. Thus, after absorption, mercury penetrates throughout the whole framework, as shown by its presence in organic solids, in the secretions and excretions, and in the blood itself. Another proof of ready absorption is the production of all the effects of mercurial action, from the application of mercurial plasters, from inunction, from metallic mercury being carried about the person, from exposure to its gaseous emanations leading to fatal results, as in the instance of the vessels *Triumph* and *Phipps*, in 1810,§ where, some bags of mercury having been placed on board, several of them burst, and the crew of both vessels were salivated, two fatal cases occurred, and all the animals on board were destroyed ; and additional evidence is derived from the injury accruing to those who use it in various branches of art, as gilders, barometer-makers, &c. Many particulars and instances of this mercurial absorption may be found described in works on the action of poisons, by Christison, Taylor, Trousseau, Pidoux, &c.

"When poisonous doses of corrosive sublimate or the other more active preparations of mercury are taken, there is violent action on the mouth and throat, a strong burning sensation,

\* Christison on Poisons, &c.

† Trousseau and Pidoux. *Traité de Therap. et de Mat. Med.*

‡ Taylor on Poisons—case quoted from Landerer (*Heller's Archiv.*) of mercury found in the pus of a bubo after external application of mercury.

§ *Edin. Med. and Surg. Journal*, vi. *London Medical and Physical Journal*, xxvi.



extending to the stomach ; this is followed by severe vomiting and purging, the evacuations frequently containing blood ; there is some heat of the skin, and febrile excitement ; sometimes cough, irritation of the kidneys, and even suppression of urine. This irritant effect on the alimentary canal may quickly prove fatal, and the sloughing produced in the throat is in some cases the cause of death ; or symptoms consequent on its effect on the nervous system are set up, tremors and twitching of the extremities, and gradually increasing coma or convulsions ; these conditions may be conjoined, or the nervous state only be produced. If life continue for a short time, severe salivation generally takes place, commencing in about twenty-four hours ; but an instance is recorded where the patient died in two hours and a half—more frequently about two days elapse before a fatal termination. The appearances after death are those of strong irritant action on the stomach and intestines ; the whiteness at first communicated to the mucous membrane of the mouth may have entirely passed away ; but redness and blackness, or corrosion of the mucous membrane of the stomach, are found. The condition of the colon is very similar to that produced by dysentery ; namely, inflammation of the membrane, with ulceration or sloughing ; and it is a remarkable fact, that the large intestine is affected in a much greater degree than the small, through which the poison must have necessarily passed ; red patches have been observed on the pericardium, ecchymosis on the pleura, and into the lung, and congestion of the urino-genital organs ; but sometimes, the sudden stoppage of the heart's action is the immediate cause of death. Christison, in comparing the poisonous effects of mercury with arsenic, states—1. That the symptoms commence sooner with mercury than with arsenic. 2. That the taste is more unequivocal and strong. 3. The acidity in the gullet and inflammation in the alimentary canal is more evident. 4. The face is flushed with mercury, ghastly in poisoning with arsenic. 5. That in the former blood

is more generally discharged by vomiting and purging, and there is more frequent irritation of the urinary organs. 6. The nervous symptoms are more common with mercury. 7. The irritant effects are more curable, and, 8th, are less subject to variation than in poisoning with arsenic.

"It has been already stated that mercurial preparations act on the gland tissues and on the mucous membranes; and the deleterious character oftentimes manifests itself in the excessive effect produced on these organs. The first to which especial reference must be made is *profuse salivation*; the ordinary symptoms of salivation are metallic taste in the mouth, fœtor of the breath, a red line along the gums (sometimes of a leaden hue after poisonous doses), but very quickly followed by sponginess, then ulceration, commencing at the margin of the gums. The parotid, submaxillary, and the sublingual glands become tender, swollen, and their secretion very much increased; the whole mucous membrane of the mouth is slightly œdematous, and the tongue is enlarged and indented. All these symptoms may become excessive; many pints of saliva may be discharged, the ulceration of the gums rapidly extend, leaving the teeth bare, so that they become loosened, and often fall out; if still more severe, the jaw becomes necrosed, and neuralgic pains follow. Few sights are more distressing than one of profuse salivation, the tongue swollen and protruding from the mouth, saliva constantly running from the lips, the patient almost unable to swallow, or to articulate; and sleep prevented from the inability to close the mouth, or to assume a comfortable position. The whole system sympathises, the patient experiences a sense of great exhaustion; the pulse becomes feeble and compressible, and frequently there is increased action of the skin and the kidneys; and the bowels also are generally more or less purged. The fauces and soft palate sometimes become ulcerated, and slough; but this is a rare sequence of mercurial salivation, unless it have been taken in a poisonous dose and

concentrated form, as a strong solution of corrosive sublimate, or of the nitrate of mercury. The quantity of mercury required to produce salivation is sometimes very small ; Dr Christison mentions an instance in which two grains of calomel produced fatal salivation (from Dr Crampton, 'Trans. Dub. Coll. Phy.,' vol. iv., p. 91), and Bright one in which five grains placed on the tongue produced salivation in three hours. Dr Ramsbotham, in the 'Medical Gazette,' states that five grains of blue pill repeated three times, were followed by extreme ptyalism, and consequent death. Dr Copeland gives several instances of even still smaller doses producing most severe results—one grain of blue pill having led to salivation, one grain of grey powder to violent diarrhoea, and nine grains of blue pill to ulceration of the mouth, sloughing, and extreme prostration.

"Some of the forms of ulcerative stomatitis in children, and the terrible form of disease called cancrum oris, in which the cheek becomes gangrenous, and the child, if spared, is mutilated for life, have often been unjustly attributed to mercurial poisoning ; discredit and rebuke have fallen cruelly upon the practitioner when no mercury had been given, and where the ulceration and gangrene had arisen from other forms of mal-nutrition.

"It is well also to remember that other substances will produce salivation ; this has frequently been observed during the use of iodide of potassium. I well remember a hospital patient freely salivated by nine grains of iodide of potassium given in three-grain doses ; and a friend of mine, a physician, informs me, that if he take a single grain of iodide of potassium, profuse secretion takes place from the mucous membrane of the nose and mouth, in such quantity as to prevent sleep at night. Iodine has similar action in some instances, so also the salts of gold ; those of antimony, copper, lead, and bismuth have been said to produce a similar effect, as well as croton oil, hydrocyanic acid, digitalis, colchicum, and even sulphuric acid and opium ; but it may be the result of some local irritating cause in the

mouth, as a decayed tooth, a portion of necrosed bone; there can be no doubt also, that perverted or disturbed nervous action may set up transient salivation, as in some forms of hysteria, and such is the probable explanation of the so-called spontaneous salivation. In these latter instances, the salivation is free from nearly all the indications of metallic poisoning—the brassy taste, fetor of breath, and sponginess, with the commencing ulceration of the gums. Simple catarrh, or cynanche, may, however, be aggravated by mercury. But whilst in some morbid states salivation is with great difficulty produced, as in fever; in others a very minute quantity suffices for severe mercurialisation, as in chronic renal disease. Instances are recorded, where after the patient had apparently recovered from all the effects of mercurial salivation, after several months, in one instance three months, salivation again came on, without any fresh administration.\* It is probable that in some of these instances, exposure to cold was sufficient to set up renewed excitement of the salivary glands, already hypertrophied or irritable.

“Children are with difficulty salivated, and this often leads to the more free use of mercury in their complaints; very frequently, however, diarrhoea is produced; a form of chronic muco-enteritis, and perhaps also disease of the mesenteric glands, are the result. In children, the evacuations are sometimes green, like spinach; a condition attributed by Mialhe, Michea, and others, to the discharge of bile; but this symptom is referred to altered blood by Zeller, Golding Bird, &c.†

“Severe and uncontrollable *purging* is another injurious sequence of mercurial action in adult life; an injury more likely to occur in strumous subjects than in others. The production of diseased rectum is doubtful; but it is not improbable

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\* Christison on the authority of Messrs Bromfield and Howard, of the Lock Hospital, in the trial of Miss Butterfield, 1775.

† By Kraus assigned to the action of mercurials on milk. Pereira, Mat. Med.

that jaundice may sometimes follow the violent action on the abdominal mucous membranes and glands. (Copeland.)

“There are other injurious effects of a more general character, affecting nutrition, and perhaps, through it, the nervous system. A febrile state is occasionally set up, before or during salivation, with heat of skin, and quickened pulse, which has received the name of *mercurial fever*; but sometimes, either from peculiarities of the system, or the long-continued use of the drug, the nervous system is more completely exhausted, and a state of excessive prostration is the result, which has been denominated *mercurial erythism*, first described by Pearson. There is, in this state, a marked tendency to syncope; attempting to walk, or to assume the erect posture, is followed by faintness; the pulse is feeble and very compressible; there is sighing, pain at the region of the heart, the muscles tremble, the mental powers are depressed, vague neuralgic pains occur, and instances have been recorded of sudden death. Amongst those whose employment leads them to habitual handling or exposure to its influence, as miners, gilders, barometer-makers, a somewhat similar condition has frequently been observed; with impaired nutrition, and feebleness of the general strength, the arms shake, and a constant tremor is the result, designated *mercurial tremor or paralysis*; if the exposure be continued, all the muscles become affected, even those of mastication and speech; the skin becomes dry, and sometimes brown; there is loss of memory, and death has in rare instances followed, preceded by sleeplessness, delirium, &c. These severe symptoms may come on suddenly, but are generally very slow in their disappearance. Dr Christison records an instance of a barometer-maker, who, with one of his workmen, slept during the night in a room where the vapours of mercury escaped; a vessel containing the metal was placed on a stove, which had had a fire accidentally kindled in it; one was salivated and lost the whole of his teeth, the other suffered from shaking palsy during the rest of life. Other diseases of the nervous system have been ascribed

to mercury, as epilepsy, melancholia, and insanity; but it is probable that other causes were also in operation.

"*Mercurial cachexia* is a term applied to the imperfect nutrition consequent on mercurial action, in which the skin is pale, the blood watery and deficient in red corpuscles; the pulse is irritable and compressible; the patient complains of sense of faintness and loss of strength; there is palpitation of the heart, and a disposition to swelling of the ancles or general anasarca; if there be also a tendency to strumous forms of disease, we may find the symptoms of chronic disease of the lungs or larynx, perhaps of true phthisis gradually developed. It is during a less degree of this cachexia, that abnormal deposits, effusions, or growths often become absorbed.

"Some diseases of the *periosteum* and of bone are to be regarded as the result of mercurial poisoning, aggravated by strumous diathesis or syphilitic taint. Our own experience does not lead to the observation of syphilis in its primary forms; but many authorities of great weight have attributed disease of periosteum, formation of nodes, and necrosis to this result of a double poison—mercury and syphilis.

"The *skin* is also affected in a marked degree in chronic poisoning by this metal. Pearson, Alley, Rayer, and others have drawn attention to a form of eczema, in which minute vesicles are produced, accompanied with more or less cachexia, *eczema mercuriale*; and it is probable that other cutaneous diseases following severe or prolonged mercurial action are merely forms of the same state, modified by the character of the skin itself, as mercurial erythema, erysipelas, or lepra, &c.

"Other effects have been described, as increased action from the skin, and from the kidneys, as the result of mercurialisation. Sufficient has been said to show the character of the direct injury produced in some cases; and from the whole, we may assuredly infer that the action of mercury is opposed to the right performance of the vital functions of nutrition and of reparative change."

## CASES.

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CASE I.—FEBRUARY 5, 1856.

*Delirium Tremens and Constitutional Affection, resulting from the Absorption of Mercury.*

THE present case is the first which has been treated with the Electro-Chemical Bath, and it was not without difficulty I could find a patient, although I offered to treat him gratuitously.

Several medical friends had promised to send me proper subjects for making my experiments, but they proved deficient either in memory or in good-will. After being disappointed for some months, I resolved then to accomplish my purpose without the assistance of my friends, but with the help of my upholsterer, who introduced me to his looking-glass manufacturer, Mr Griffiths, 20 Southampton place, New road, who promised to find as many patients as I might wish: it was, however, about a month afterwards that a workman from Mr Griffiths' factory made his appearance.

Joseph Thompson, aged thirty-two, married, was accompanied by his wife, who related his case, her husband being scarcely able to utter a word. She states that he has been working at the silvering of glass for nine years, but has only been seriously affected for the past two years; has been getting so bad lately, that he has been compelled to give up his work and to keep his bed. The man is labouring under an attack of delirium tremens: his body and limbs are constantly shaking; his complexion

cadaverous ; his look is haggard ; he has lost his memory, and has an appearance of imbecility ; he has a great difficulty in breathing, and has not been able for some time past to take any solid food ; has been obliged to live on bread and milk, still he cannot chew it ; the pains are so great when he attempts it, that he feels as if a saw was cutting between his teeth : all the functions of the body are deranged ; he is altogether a picture of misery and wretchedness. He is so much saturated with mercury, that if he carries a piece of gold in his pocket, it becomes coated with it, and requires to be evaporated by heat at a high temperature before any one will take it as a gold piece.

I had at the time but a single bath, which at that moment was not in working order ; I, therefore, put him off till the following week. But Thompson was so rapidly getting worse, that his wife called on me two days afterwards, stating that, unless I would be kind enough to take him immediately, he would very likely be dead by the time I had appointed. He came the next morning. I have said that I then had but a single bath, which I had fitted up in a small room on the second floor, with a boiler in the room above. My object had been, before undertaking to form a large establishment, to test, previously, if my theory would be borne out by practice, in order to deceive neither myself nor the public. It was not an easy matter to take Thompson up stairs : whilst he was holding the banisters with one hand, I was supporting him under the other arm, and his father-in-law was pushing and supporting him behind ; four or five times his knees gave way all at once, and he would unavoidably have fallen had I not provided powerful assistance.

He was put in the bath at half-past two o'clock. This operation, generally so simple, was not in this case performed without difficulty. Thompson, in this respect, was worse than a paralytic patient, as he was not only helpless, but shook so violently that it was very awkward to take hold of him. The shaking, I may



say the kicking, continued some time before he could keep his neck on the head-piece, and hold the pole of the battery in the hand : he, however, resumed progressively a somewhat quiet position. We noticed, in about half an hour, something like air vesicles coming up from under the arm-pits ; they followed each other with rapidity, and, later, some others appeared along the legs. The patient did not complain of any particular sensation or pain, but felt comfortable, breathing more easily, and experiencing a genial warmth. Before the hour was expired, the face became flushed, a gentle perspiration appeared around the mouth and the eyes. He was taken out of the bath almost fainting, the body being all over of a vivid red ; he was well wrapped up and put on a sofa, and he soon recovered. After being dressed, he felt more comfortable and steady ; the expression less anxious ; he came down stairs with less difficulty, and walked with more ease.

February 12.—The patient has been attending the bath every other day up to now. After the first, bath he felt a great giddiness, which has since disappeared : he now, however, feels stronger, and has a greater command of volition over his limbs ; he has not had any return of faintness ; it was observed by his father-in-law, Mr Manchester, who always comes with him, that since the last bath he had less confusion of mind ; the appearance of the skin is more healthy ; the general countenance is much improved. He enters the bath, as usual, at half-past two o'clock : in a short time bubbles again arise, but in greater number, from under the arm-pits and under the limbs, which are less shaky. On being asked if the soreness of his mouth had undergone any change, he said, "Yes, it is very much better ; my teeth are not so tender, I can eat more easily."

Although the patient was decidedly better in every respect, no mercury could be detected in the bath, when it was found that the acid had been forgotten to be put in. The patient has been chatty and in good spirits all the time ; he has no flushing nor fainting, and feels generally improved.

(It is but proper, I think, to mention that during the above experiments, were present, as witnesses—Dr Ridges ; Mr Browning, Surgeon ; Mr Lavison, Surgeon-Dentist, a very scientific gentleman ; besides Dr Mills, and Mr Manchester, the father-in-law of the patient. I consulted these gentlemen on the propriety of prescribing such kind of medicine as might enhance the action of the bath ; but they thought it better not to do so, considering that, if medicines were given, it could not be possible to ascertain if the result should be due either to the therapeutic agents or to the baths. I followed this wise advice, and during the course of the treatment the patient has not taken a grain of medicine, so that there is no equivocation about the result being entirely due to the bath.)

February 19.—The boiler of the bath having been out of order, the patient was unavoidably deprived for one week of its use : nevertheless, his general appearance is strikingly improved ; he feels better, is stronger ; bubbles, similar to those coming from his body while in the bath, have spontaneously come out of his mouth while walking, in the form of a slight salivation. His head feels much lighter and clearer, the mind still less confused, his hands and limbs less shaky ; he is able to write, with a little effort ; walks a great deal better ; has been able to come up stairs (second floor) almost without assistance ; his countenance is calm and composed, his complexion much more natural.

Ten minutes after he had entered the bath, he felt a pricking sensation all over the body ; he says he can now enjoy a beef-steak or a mutton-chop, his gums are so much better ; he has been less restless during the night. When taken out of the bath, he feels his head more comfortable ; his back is less painful ; he feels as if something was working in his inside, being a sensation he has not experienced before.

February 21.—According to his own statement, Thompson feels altogether a great deal better : his trembling is nothing in comparison to what it was before ; he has very little shaking of

the head ; feels steady on his legs, and stronger in the hands ; his appetite is very much improved, he can eat anything with pleasure ; has no soreness in the mouth ; feels warmer in the body, notwithstanding the cold temperature of the weather ; the strong taste of copper he had in his mouth is nearly gone ; his spirits are very good, his whole appearance greatly improved.

After entering the bath, he felt the same pricking as he did before, but less intense ; the cutaneous elimination appears as usual ; the electricity is felt in the wrists. On getting out, he felt better in every way ; comes down stairs without assistance, and walks out firm and steady.

February 28.—The patient states that he felt so much better and stronger last Sunday, that he walked a distance of twelve miles. To-day he is able to ascend the stairs two at a time without assistance ; it is play for him to get in and out of his bath : he has nothing to complain of ; feels comfortable in his bath ; the elimination is much diminished ; the copper of the bath has a whitish appearance.

March 5.—Up to this time, no particular means had been employed to collect in a tangible form the mercury coming out from the body. The patient was rapidly getting better, and his being ill from the absorption of this metal was a fact which he fully acknowledged. It was evident that the cause (mercury) was removed from the system ; and if we reduce to the simplest expression the effect of my mode of treatment, to the ultimate and most gratifying result, it consists in the cure of the patient.

Let the medical attendant be able to account in every point with the *modus operandi* of his mode of proceeding ; or suppose that he is not able, as is too often the case in therapeutics, to trace beforehand with certainty the action of the remedies he makes use of. It is no matter to the patient if he recovers, and so far at that time I found my most sanguine expectations realised. I was most anxious every day to see my patient, to

hear how he was progressing, and to ascertain by experience the correctness of my anticipations; all was favourable, incontestable facts were there before my eyes, still I wanted to know more—I wanted to meet the enemy face to face. It was then it occurred to my mind to concentrate the effect of electricity on a limited portion of the body, and for this purpose I resorted to an electrical foot-bath, where spots of mercury were found on the copper plate, representing the negative pole, which was put in the tub. As a subsequent experiment, I evaporated the mercury by heat, and thus had the counter-proof of the operation.

Thompson has recovered all his functions and faculties, and is regaining his strength progressively. Some time before, he was abandoned to his unfortunate fate, as there was no hope entertained in his favour; now, he has become an object of interest, and some benevolent souls have made a subscription in his behalf to afford him the means of spending some time in the country.

He came back within a month afterwards, strong, fat, and in perfect health, but afraid of returning to his trade. He was then trying to get a situation as porter at the Railway, being, he assured me, quite able to undertake the task.

During the time he was out of employment, I engaged him to take some baths occasionally, which he did. One day he brought a paper containing some greyish powder, which his wife had found in the water in which she was washing his stockings. On examination, it was found to be an amalgam of quicksilver and tin—the very substance made use of for silvering looking-glasses. I have it still, in a bottle; it weighs  $29\frac{1}{2}$  grs. He told me that what he had brought me was but a small portion of what came out of his stockings, his wife having thrown away the remainder. I have seen Thompson many times after this: he was engaged in hard work, but still continued well, if not better, in consequence of his mode of employment.

## RATIONALE.

The preceding case has been my first step in the employment of the Electro-Chemical Bath, at a time when for want of experience I was not able to follow all the particular phases of the *modus operandi* of my present method: still, the favourable results I then obtained, viz., the restoration of the patient, was sufficient to encourage me in the pursuit of this discovery; a thing that I have assiduously and exclusively followed for nearly six years, during which time, by observation, deductions, daily experiments, and constantly studying the subject, I succeeded, I may venture to say, to unveil new phenomena, and to establish a conviction founded on indisputable facts.

I have mentioned in the foregoing remarks, that little attention was paid at first to the deposits in the bath, which were not discoloured, as those subsequently reported. I can now easily account for the difference. In the first instance, Thompson was not ill from the taking of various medicines producing coloured deposits, but merely from the absorption of an amalgam of mercury and tin—two substances which have the greatest affinity for each other, and come out of the body in the same shape as they get in, viz., an amalgam of a greyish tint, with which the bath was covered. Mercury (quicksilver) was only found when the electro-magnet was employed, and this is again easily understood: the electro-magnet has a shaking action, and mercury being a great deal heavier than tin, came down in consequence of its specific gravity.

It is also very easy to comprehend that when the amalgam was found deposited in the stockings of the patient, it was the result of its weight; and this simple fact in appearance, bears a great importance with regard to similar cases; when swelling of the knee or ankle, and concretions in the articulations of the feet, caused by mercury, are proved by the above remarks to be the result of ponderous substances.

## CASE II.—MARCH 17, 1856.

*Constitutional Affection of Thirty-eight Years' Standing,  
produced by Mercury.*

Rev. R. P., aged fifty-eight, single. When at College at Cambridge, then nineteen years old, contracted an infectious disorder, for which he took an immense quantity of mercury without being salivated. Six months after, all symptoms disappeared, and, according to all appearances, he considered he was cured, but continued, however, to take sarsaparilla in great quantity. Six months later, he again contracted the same affection, and resumed the mercurial treatment during six months. He had the misfortune to catch the same disorder a third time, but with aggravated symptoms; and mercury was again administered: had chancres and tumour of the inguinal glands; one burst inside, the matter was reperculated internally and the whole system became deranged; the head was affected with constant giddiness; digestion was impaired, obstinate constipation supervened; he became nervous and irritable. In this condition he went to India, thinking that the climate might prove beneficial; but all the symptoms were augmented. Once more he resorted to mercury in the form of calomel, with opium, during eight months, but without any benefit; and was compelled to return home, his health quite impaired. During his passage, the pain in the head became so severe that he was obliged to lie in his berth in a state of passive insensibility; he dared not even indulge in thought, having, when in India, had an attack of insanity in the shape of religious monomania. He made up his mind to go to France, when the change of climate and scenery afforded him some relief during a short time. He now lost all confidence in medical men attached to orthodox principles, after having submitted himself to all their dictates for so many years, when he happened to meet an

officer he had known in India, who advised him to try Morrison's pills, as a remedy that he had himself found very beneficial; hoping also to find some benefit from that so-called universal medicine, he went to consult at the College of Health, as this establishment entitles itself, and was advised to take twenty pills, No. 2, per day, which he did. And see the perseverance of man when he suffers! he continued during thirteen years taking these pills, which at the beginning gave him some relief by producing strong purgation, but ultimately failed to restore him. He told me that he had not taken less than 100,000 of these vegetable pills. He then heard of Dr Coffin's system, and went under one of his agents, who gave him some vapour baths and an immense quantity of composition powder, and was so much reduced by it that he gave it up in despair. A physician at Leamington advised him to desist from those empiric treatments, and to resume a legitimate course of medicine; he prescribed mercury and steel, as a new and efficient mode of preparation; but the patient got worse, and had a new attack of insanity. He could not sit at his meals; he fancied he had a gad-fly in his inside. Whilst in this state, he was advised by a lady to try the hydropathic treatment under Dr E. Johnson; he remained two months in his institution. Not progressing as he anticipated, he went to Ilkley Wells, under Dr M'Leod, for two years, where he obtained some relief, but was so weak that he was unable to take exercise. He then went to Dr Gulley, who treated him for chronic inflammation of the mucous membranes during six months, with little relief. He then went to try the water-cure in Germany, but with little result. The Rev. R. P. had not as yet tried Homoeopathy, and, with his usual perseverance, followed that mode of treatment during two years without reaping any benefit from it. He decided on going once more to Germany, and this time he gained enough to induce him to believe that he might continue to improve at home, but he found on his return that he was

mistaken. After some time, he undertook a third journey, but was disappointed—he gained no more. The Rev. R. P. has now been suffering from the baneful effects of mercury for about thirty-eight years: he has spent the greatest part of his life and his fortune in the search of health. Having heard of the Electro-Chemical Bath, he called on me on the 17th of March, 1856. He is a man of high stature, with grey hair, sallow complexion, of an intellectual physiognomy; the eyes are expressive, but the countenance is dull and desponding, still not dispirited; he appears like a man resigned to his fate, but thinks it his duty to neglect no means which might restore him.

He complains of a very severe pain on the top of the head, especially when thinking on religious matters. No doubt, he feels some remorse at having brought on himself the evils he complains of. He experiences in the stomach what he calls a confused feeling of uneasiness and pain; he has no appetite; the digestion is much impaired; is subject to constant constipation, being unable to have a natural evacuation unless he uses the enema every other day. He suffers also from piles and fistula, and frequent pains in the abdomen and groin; he is in a state of general debility, extremely emaciated, and consequently no physical power.

March 18.—Entered the bath at half-past three o'clock; in a few minutes an involuntary shudder came all over him, and continued all the time he remained in; he felt the electricity in his arms, when the trembling increased. After having held the pole of the battery in one of his hands, he felt as if sand was coming out of the skin. On leaving the bath, his hands had turned a deep dull blue, as if they were dyed; he labours under a slight shivering, still he does not complain of pain or uneasiness, but merely of strange feelings.

March 19.—States that last evening, after the bath, he felt some weariness and flying pains, but slept better. On



getting up this morning, he felt relieved ; the pains were not so acute, and his spirits better than usual. He mentioned that when under hydropathic treatment, his head was usually rubbed with tartar-emetic, which brought on an eruption. Has not had to-day the trembling he had yesterday while in the bath ; a slight elimination appeared ; he felt the same sensation of sand coming out of his fingers ; on scraping them with a spatula, a fine granulated substance is collected on the blade ; the hands are discoloured, as yesterday, with blue as usual ; the copper is coated with a light greyish deposit (calomel).

March 21.—Felt an unusual weariness yesterday after the bath, accompanied with acute pain in the legs and thighs, great nervous irritation, and great prostration in the evening. Went to bed early, and slept better than he has been accustomed to, and got up refreshed and cheerful this morning. Says that he has felt more quiet and composed on the whole since he has begun the baths. The same sensation about the hands.

March 23.—Goes on about the same, but is troubled with constipation. Applied local electricity all over the abdomen, with a firm manipulation over the large intestines.

March 24.—Thinks he is improving ; although all the symptoms remain the same, they are not so painful in any particular part. The paroxysms are not so intense or of so long duration. Rev. R. P. studies himself most carefully in every way, and keeps a regular journal or diary of all his feelings. When paroxysms come on, he takes his watch and writes down when they commence and when they finish, as well as their character and intensity : he is, therefore, able to know exactly how he is going on. He has had a natural action of the bowels, the result of the local application, which had not been the case for many previous months. His sleep has been more natural and continued. In every respect there is a general improvement. Appearance of the bath as usual.

March 26.—Felt more comfortable yesterday after taking

his bath, but has caught cold, and had an attack of indigestion, which has caused him much uneasiness. Had an evacuation in the night, and bad sleep; still he is less depressed in body, and his spirits are better. The chilliness he was subject to has much subsided.

After being in the bath for fifteen minutes, he felt a tingling, first in his feet and next in his hands; the sand, as he calls it, still issuing from his fingers; the hands discoloured, as usual.

March 29.—Has been much worse since his last bath, except his bowels, which have been relieved regularly every thirty-six hours since the first manipulation of the abdominal viscera. The alvine evacuations are more natural, and cause less pain in passing.

March 31. — Fifteen minutes after he had entered his bath, felt a pricking all round the arms and neck; after forty minutes, he, for the first time, experiences a metallic taste in his mouth. The fingers and hands are as usual.

April 2. — Has felt less pain since the last bath; the neuralgic symptoms are very much diminished. The natural action of the bowels are re-established; but he feels a pressure on the brain, with a mental excitement, brought on by involuntary thoughts on religion, and other anxieties, arising from the congested condition of the brain, from which he suffered constantly during two years, and which continues even now in a chronic form.

After being a short time in the bath, he felt the same pricking sensation he had experienced the last time, followed by a cutaneous elimination: the hair on the legs, thighs, shoulders, and under the neck, are covered with a quantity of minute bubbles, which were scraped off with a copper spatula, when they arose to the surface of the water, where they disappeared and mixed with the liquid without breaking.

On looking into the bath, we noticed, at a depth of seven or

eight inches, some white atoms moving slowly in the water, without ascending like the others. Whilst he was in his bath, sedative refrigerant water was applied from time to time on the head, and relieved the pain, but caused a pressure or kind of numbness on the brain.

April 4. — He is progressing. Feels the metallic taste in his mouth. After being some time in the bath, similar sensations and eliminations as the last time. The copper assumes a light, whitish colour.

April 8. — Greatly improved in every way; bowels regular and natural in consistence; has not suffered from his usual paroxysms; all the symptoms are subsiding, except his head, which is painful; and a nervousness which somewhat alarms him. He is quite satisfied with the progress he has made; it is not as rapid as he could wish. He tells me that he has been ruined by the expenses attending the treatment he had followed; that the remainder of his property is but a small farm, and that his present means will not allow him to follow the treatment much longer. It is evident that his headache is purely the result of mental anxiety. After entering his bath, the phenomena previously mentioned appeared in the same manner, perhaps a little diminished in their character. Having kept him company and talked with him while taking his bath, sympathising and reasoning on his situation, he became more composed and calm. His head is better, his spirits somewhat risen.

April 10. — Has been better since his last bath; slept better; is quieter and more comfortable; complains only of a slight pain in the bowels when at stool. His head is heavy, but not painful. He is glad to see me, and greets me in a friendly way; in this he is correct, as his position inspires me with great interest. After a life of constant sufferings, to be almost reduced to poverty at the end of it, is a very cruel

thing. I try to give him some consolation, which, fortunately is not lost.

I am satisfied by experience, that on all occasions we have to treat the mind as well as the body ; and that when the medical man has gained the confidence of his patient, both as regards the matter of principles, of integrity and the rationality of his mode of treatment, he has half gained the battle. I have observed several cases where the patients were almost dying from despair, who revived at once at the sight of their medical friend. Dr Thomas Inman, Member of the Royal College of Physicians, London, Physician to the Liverpool Royal Infirmary, &c. &c., quotes many striking examples of the same nature in his work entitled 'Foundation for a New Theory and Practice in Medicine.' Thus, by my presence I restored his tranquillity of mind. He took his bath very comfortably ; felt well, and seemed soothed in every respect. The elimination is somewhat less. When he left he bath, he said that he certainly was wonderfully improved, and went out in very good spirits.

April 11.—Came in high spirits. States that he ate with good appetite ; slept well ; has had no pain ; that the bowels are right. He thinks that he may return for some time to his abode in the country ; that in case he should get worse, he would come again. He took his bath as usual, and bid me good-bye.

The Rev. R. P. had taken only twelve baths. I have not seen him since ; but about a month afterwards he was met in London by one of my assistants ; he was walking briskly, and looked uncommonly well.

#### RATIONALE.

This striking case is a powerful argument against the use of that mineral poison so liberally and blindly used in almost

every disease. (See, in the Introduction, the 1st chapter of Dr Habershon, *On the Baneful Effects of Mercury*.) Let the reader follow the various phases of this sad case, and notice that every time the patient took mercury he got worse; the last dose having led him to a state of insanity. Under what circumstances has he been partially relieved before he came to me? Only by the hydropathic treatment that he had followed during months and months. He came to my Establishment, where he took no medicine, but where we extracted some of the drugs he had taken, and he was, by taking only twelve baths, relieved from his sufferings, and sufficiently recovered to be able to return home and attend to his personal affairs.

It may, perhaps, be asked if I consider the patient as being quite cured? I answer, No! But I may venture to say that a correct deduction of the possibility of obtaining a perfect cure might have been arrived at, had the patient followed the treatment long enough. Every cure begins, first by an improvement, sometimes so slight, that the patient is not able to appreciate it; a succession of improvements make the patient aware of his progress, and the continuation of such improvements constitutes, as a matter of course, a radical cure.

On the other hand, if a case is incurable, the efforts of the physician should be to assuage sufferings and to prolong life: then, in such cases, the Electro-Chemical treatment proves by the fact under consideration, that it affords the most ready and efficient means to obtain this result.

Hydropathists pretend that mercury is eliminated by their mode of treatment: if so, how is it that, in the course of several years that the patient has followed such a treatment in several establishments at home and abroad, he has not been cured? Why?

## CASE III.—MAY 16, 1858.

*Mercurial Cachexia.*

CAPTAIN H——, aged twenty-eight, married. When residing in India, was affected with torpidity of the liver, constipation, neuralgic pain across the lower region of the spine, the loins, and round the thighs when on horseback. He was subjected to mercurial treatment, which did not relieve him; he then went under Dr J., who recommended the cold-water bath, which afforded him a little relief at the time, but he soon had a relapse.

He now complains of restless nights, with horrid dreams; loss of appetite; great debility; general derangement of the vital functions; deafness of the left ear, and flying pains over the body; a great emaciation. Bowels are somewhat more regular than at the beginning of his affection.

May 16.—On entering the bath, felt rather languid and depressed; he was labouring under apprehension, and remained in a state of stupor; on leaving it, he fainted, but soon recovered. The cutaneous elimination was profuse; and considerable deposits of iron and mercury were found in the bath. No doubt, the faintness was the effect of the powerful and rapid action the electric fluid had on the whole organism.

May 17.—Has slept better after the bath yesterday; is more composed this morning, and leaves the bath without inconvenience. Cutaneous elimination profuse; same deposits as yesterday.

May 18.—Has passed a still better night; no dreams; feels refreshed. Elimination very abundant; deposits increased.

May 19.—Not so well; passed a restless night; bowels uncomfortable; motion scanty. Elimination very abundant; deposits of mercury, iodine, and antimony.

May 20.—Languid, weary, and depressed, occasioned by want of rest during the last two nights.

May 21.—Had a better night; feels, while in the bath, a pricking on the arms and legs. Elimination tolerable; same deposits.

May 22.—Has had a comfortable night; the stiffness of the joints has subsided; feels much improved.

May 23.—Quite improved in his general health; occasional slight pains in the body, amounting merely to uneasiness. A considerable deposit of iron, with one large spot of mercury (quicksilver).

May 24.—Much the same.

May 25.—Very much improved.

May 26.—Quite well, and in good spirits.

May 28.—The patient is very much impressed with the efficacy of the bath; speaks of it as being a wonderful thing. All his ailments have disappeared; all the functions are re-established; sleep is perfect and refreshing; he feels invigorated, and thinks he is making flesh.

The patient leaves, cured, after taking twelve baths only.

#### RATIONALE.

To analyse this case, would be a repetition of the same remarks filling this book; we have only to observe that mercury was again the cause of this affection (cachexia), which, in plain language, means degeneration or decay of the organism, and loss of vital power, generally leading progressively to a fatal end.

This case has been cured with only twelve baths; and although short, it presents, however, the ordinary phases of better and worse, as it always happens in a more or less degree. It should be noticed, for the guidance of patients who are inclined to believe that as soon as they feel better, the improvement should incessantly increase until the entire recovery, without a relapse. This is a mistaken notion which I wish to remove at once, in order to prevent disappointment.

## CASE IV.—MAY 5, 1858.

*Secondary Symptoms—versus Mercurial Affection.*

C. T., Esq., aged forty-four. The patient, some twenty years ago, contracted an infection, for which his medical adviser prescribed a course of mercury, from the effect of which he has suffered ever since, having produced various kinds of tumours on different parts of the body. He has never been free for the last twenty years of some kind of derangement, inflammation, eruption, abscess, induration, &c. Complains now of a troublesome abscess on the anus, constipation, bad appetite, weakness, general depression, inflammation in the mouth—in fact, of what we may consider as an inflammatory condition of the mucous membranes.

May 5.—Takes his first bath to-day, in which he feels easy, although on leaving it he noticed deposits of mercury.

May 6.—Feels somewhat lighter and more comfortable this morning; has slept better; cutaneous eruption already appears on the abdomen and along the thighs. Profuse cutaneous elimination; mercurial deposits. Complains of much irritation.

May 7.—Bowels costive; apply electricity over the abdominal region, to promote the natural or peristaltic action of the intestines. Pustules make their appearance round the anus. Cutaneous elimination now profuse; mixed deposits and spots of mercury.

May 8.—Feels much easier; the bowels have acted; eruption more healthy-looking. Elimination still profuse; deposits of iron and mercury.

May 11.—Since the last three days, the patient has been progressively improving; sleeps well; appetite good; bowels regular. Large deposits of mercury and iron.

May 13.—Going on well. Same deposits.

May 14.—Better in general health; gets stronger, and is



in better spirits. Elimination still profuse ; eruption active and more extended. Same kind of deposits, in rather greater quantities.

May 15 and 16.—Has been improving ; no particular pain ; the eruption is abating.

May 17.—The rash is diminishing ; the abscess nearly healed.

May 18th.—Mouth and gums quite recovered ; all the functions of the body are restored ; the patient feels well, vigorous, and in good spirits. The cutaneous elimination normal ; but slight traces of deposits.

May 19.—The patient takes his last bath. All symptoms have disappeared. He is perfectly free from pain, and leaves quite recovered, blessing his stars for having heard of the Electro-Chemical Baths.

#### RATIONALE.

This case, like a great many others of the same kind, presents similar characters and the same results—viz, the cure of the disease by the removal of the cause.

The only particular remark it suggests, and to which I wish to call the attention of the reader, is, that during all the time the deposits were specially *iron* and *mercury*. Iron is prescribed as a corroborant or tonic and strengthening medicine. It is on this presumption that it has been given to the patient in great quantity : but the patient has been getting weaker, and has in the bath thrown off the iron in the shape of deposits. May we not conclude from this fact, that iron is neither an assimilable substance nor a strengthening agent ?

In what does physical power consist ? In the increase of muscular fibres. On what depend vital functions ? On the normal quantity and condition of the living molecules composing the vital organs : but here we find again a weakness and derangement of organic functions : on this point I leave the reader to draw his own conclusions as a matter of common sense.

With regard to mercury, it is generally administered as the best therapeutic agent for removing inflammation; and here what the patient particularly complains and suffers from is *inflammation*! So much for the rationality of the treatment.

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#### CASE V.—JANUARY 24, 1858.

##### *Mercurial Complaint.*

Mr W. C., aged twenty-seven, manager of a Daguerreotype establishment, in which he is exposed to the vapour of mercury, contracted about nine years ago an infection, for which he consulted his medical adviser, who put him under a course of mercury which removed the primary complaint, but brought out a great eruption of a coppery appearance all over his body, with great pain and stiffness in the joints: he became languid and apathetic, very reluctant to leave his bed, being obliged before getting up to rub himself freely, in order to ease the pain before he could move. He says he has been taking blue pills three times a day, amounting to ten grains, without finding any relief.

Went to the hospital for this new complaint, where he took a variety of medicines to no purpose. He then consulted another medical gentleman, who prescribed iodide of potassium with sarsaparilla: this induced perspiration, improved the breath, and made him better.

Suffers still from mercurial eruption and the other symptoms already mentioned, besides a difficulty in breathing.

January 24.—He had scarcely entered the bath, when a very profuse elimination appeared all over the body and caused him a sense of comfort.

January 25.—Similar action and feeling as the previous day.

January 26 and 27.—Last night, after taking the bath, felt very languid and weak; states that the sun has a great effect upon him. Cutaneous elimination; considerable deposits of calomel, and a great quantity of iodide of potassium. Bowels regular.

January 28.—Has experienced great nervous irritability, especially at mid-day. The stiffness of the articulation is rather better. Cutaneous elimination moderate; deposits of calomel and arsenic.

January 30.—Eruption appearing on the shoulders and thighs; still complains of the effects of the sun's rays.

February 1.—Feels a little stronger and more inclined to move; appetite good; bowels regular. Deposits of mercury and calomel.

February 8.—Since the 3rd, the patient has much improved in every way; feels no pain; the articulations are flexible; is progressing daily.

February 10.—Since the 6th has continued improving.

February 11.—To-day, the chest, thighs, and arms are covered with pustules; an eruption has appeared on the testes. A great quantity of effete and cutaneous elimination comes out; the copper remarkably thickly coated.

February 16.—The nervousness has now entirely subsided; the sensation of burning heat has disappeared; is no longer affected by the solar light; he feels perfectly well, and thinks he is quite cured. Still some mercurial deposits, in consequence of which I advise him to take a few more baths.

February 17.—Gradually improving both in health and strength; says the baths have done him a wonderful deal of good.

February 19.—To-day is the end of his second course of baths: he is radically cured, and says that I have done him more good in less than a month, than the seven medical men he had consulted have done in the course of several years. He

discontinues the treatment, expressing at the same time his high appreciation of my mode of treatment, and his gratitude for my kind attention to him.

#### RATIONALE.

This case is striking for the rapidity of its cure ; twenty-four baths only, of one hour each, for the removal of an affection of nine years' duration ; during which lapse he had consulted seven medical men, who, he says, had not been able to find an appropriate mode of treatment for the removal of an affection more complicated than it appears at first sight.

The complication of diseases is often such, that neither the patient nor his medical adviser is aware of its nature, or able to account for it.

The patient in this instance is strongly affected by the light. Why is he more impressible to it than any other patient ? The reason is obvious : he has been manipulating with chemicals which are more particularly influenced upon by light ; he has absorbed them, and they are diffused all over the body, creating by their presence an abnormal condition of the organism. Some of these substances, such as the cyanuret of potassium, are very deleterious poisons, which have proved fatal when absorbed even through the hand, or merely by the finger.

I recollect that, when living in Manchester, I mesmerised a young lady with a magnet for the purpose of repeating one of Von Reichenbach's experiments. When she was in the state of trance, I found, on applying the magnet on her hand, that it stuck to the skin ; proving thereby that there was a transmission into the body of a new imponderable principle. It is to those kind of phenomena that we must attribute those singular anomalies, so difficult to submit to the crucible of investigation.

In conclusion, let it be what it may, the symptoms com-

plained of by the patient have been removed by electricity, and would not have been dislodged by any other known means.

The patient states that he was exposed to the fumes of mercury, but he was also exposed to the absorption of other chemicals employed in the manipulations practised in the production of Daguerreotypes; and what proves it, is the extraordinary sensation he was subject to under the solar light. He states that he had taken ten grains of blue pill per day, and a great quantity of drugs that he does not know the names of; and next, iodide of potassium, &c. Is it not evident that none of those drugs were the proper ones, since they did not cure him? whereas under my treatment he took none. He has in reality been under treatment but for twenty-four hours, equivalent to the length of one day; to what amount can we calculate the curing power of the electric fluid, and the character of its action? We can only attribute it to its dynamic virtue, passing at once through all the molecular interstices of the whole organism, decomposing and removing, on the one hand, all the substances which create obstacles to the vital functions; whilst, on the other hand, it gives tone and stimulates the normal action of the whole organism.

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#### CASE VI.—MARCH 29, 1856.

##### *Secondary Symptoms.*

CAPT. T., from Bombay, aged forty, of middle stature, on leave of absence for the recovery of his health, has been nearly five years in London, under various Medical men. Up to the age of eighteen enjoyed tolerably good health; entered the army at that time, and now reckons twenty years' service; having passed fourteen years in India, where he suffered the usual complaints incidental to the climate; he then contracted the disease, with aggravated symptoms; copper-like coloured eruptions appeared on various parts of the body, particularly

about the genitals, accompanied with ulcerated sore-throat ; he followed a course of mercurial treatment, was salivated and got better for the time, some spots, however, remaining. The thumb of the left hand became the seat of a great pain, which turned to gangrenous ulcer, when all its flesh came away.

In 1852 he had a return of the eruption, with an erysipelas commencing in the right groin, where an ulcer had formerly been, and running down along the right thigh, causing at times a drawing of all the sinews of the limb. In this circumstance he followed a treatment of iodine during eighteen months, taking eight doses a day, of three grains each, in a liquid form, and taking a warm bath once a week ; this mode not having succeeded, he was advised by the Medical Officer attached to the War Department, to take the Mercurial Bath of Dr Green: this was in 1854. He got first a little better, but shortly after his strength failed, and he was unable to bear it any longer. He made up his mind to trust to nature, and during two years did not take any medicine ; as it were remaining stationary, still rather better than worse ; unable to ride on horseback ; hardly able to walk or to take any enjoyment. It was at that epoch he heard of my bath, and wrote to me, describing his situation, and asking if my treatment would prove beneficial in his case ; on my affirmative answer he immediately came.

He looks care-worn, very low-spirited, and despondent ; complains of great weakness in the back, and to be subject to cramps in the legs and feet. Has occasionally shooting pains in the articulation of the wrist ; complains of cold in the chest, with a difficulty of breathing, want of sleep and appetite ; digestion is pretty good, and bowels nearly regular. Captain T. must now return to India in a very short time. If he does not arrive at a stated period, furnished with a certificate from the Medical Officer of the War Department, he loses his military career, being on the list for promotion to the rank of Major ; if he is not able to resume his service in due time,

he will be put on half-pay. When he inquired about taking the bath, I informed him that I was in the habit of giving them every other day, fearing that they might prove weakening by taking them oftener. He then observed, that he would not have time enough to expect his recovery, and that he would venture to take them daily, which he did, to his gratification and mine; as I acquired the proof on this occasion, that instead of weakening the patient, the baths were increasing the general strength, by promoting the vital functions; it is from that time that I prescribe them daily to every patient.

On taking his first bath he felt no unusual sensation, but a slight pricking caused by the passage of the electricity; he was comfortable in the bath, and felt refreshed and lighter on leaving it. Cutaneous elimination was at once profuse, to his great astonishment; the copper much discoloured.

March 31.—Has felt more comfortable than usual; is not so chilly as before; feels the action of the electricity all over the body, particularly in the thighs and knees. Eliminations the same, as also the discolouration, with white patches here and there.

N.B.—It is well to remark that, at that time, I was not in the habit of having a book for the express purpose of writing down the characteristics of every deposit.

April 1.—About the same; eruption coming out on the back.

April 2.—States that he feels much better; complexion clearer; has slept more comfortably; appetite improved; the cramps he used to have so frequently, have left him entirely since he commenced taking the bath; cutaneous elimination continues the same; discolouration of the copper increased.

April 3.—Enjoyed his dinner yesterday; walked with much comfort; has no pain in the chest, and respire more easily; expressed his confidence in the treatment; spirits a great deal better.

April 4.—Respiration free ; general health much better, although he experiences a certain uneasiness and slight pain inside ; he also complains of dryness in the mouth in the morning. The eruption on the back has been increasing, and spreading over the body. (No doubt, the feeling of internal uneasiness is the result of the displacement of the matter coming out in quantity through the pores of the skin.)

April 5.—Slept very well last night ; felt this morning a working and starting within the chest ; the mouth is not quite so dry ; feels comfortable in the bath ; is cheerful, and hopes to be restored according to his wishes.

April 7. — Presumed yesterday on his improvement, in partaking too freely of the pleasures of the table ; he feels sickish and unwell to-day ; however, he is gaining strength ; he can now walk six miles without inconvenience ; eruption is more vivid, and gains along the limbs ; cutaneous elimination continues profuse ; discolouration intense ; large variegated whitish patches (calomel) are diffused at the bottom of the bath, interspersed with some spots of quicksilver.

April 8.—Improving.

April 10.—The whole system is invigorated ; he feels quite an altered man.

At that time I had but a single bath, and patients were obliged to pass in the next room for dressing, while the bath was being cleaned for the next patient ; minute examination was impossible ; suffice it to say, that in less than six weeks, Captain T. felt entirely recovered, and went to the War Department to get his certificate of validity. On meeting the Medical Officer, he was congratulated by him on his good appearance, exclaiming, "You did well to follow my advice in taking the Mercurial Bath ; such a successful case deserves certainly to be reported." It was not the time to deny it, as the Captain wanted to humour the gentleman on whom depended the delivery of his certificate ; having obtained it, he started shortly after for his



regiment. I hope he is now a Major: he was a man of intellect, and fond of scientific pursuits; serious, without being stern; possessing, I presume, the requisite capacities for making a good officer.

I do not know if his case has been reported by any one but myself; but if it has been so, under the impression that his recovery was due to the use of mercury, we have only to deplore that such things have happened, as it would mislead the Practitioner and his patients.

#### RATIONALE.

The above case has been an object of great gratification to me, having corroborated, by practice, the truth of my theory, and particularly in consequence of the rapid cure of so severe a case; it has, at the same time, induced me to prognosticate the recovery of patients, who, apparently, were affected in a trifling degree, in comparison with the present case; and I found in several instances that I had been sadly mistaken: it is this circumstance which has induced me to add a caution at the end of the first edition of my Treatise, in order to warn patients not to be too sanguine, or to flatter themselves that they can be cured in a given time.

As time passes, experience is developed, and I am able now to account for occurrences that I could not formerly explain. I have had many patients from India, all of them almost presenting very severe cases, and very rapidly cured; there is great reason to believe that the influence of the climate, by its relaxing effect on the skin and viscera, predisposes the system to a more ready elimination of the matters retained in the organism. The heat of Eastern countries almost prevents the formation of concretions, which in cold regions acquire a consistence more difficult to dissolve, and consequently to remove.

## CASE VII.—JULY, 1857.

*Case of Weakness, Emaciation, Partial Paralysis, and Constitutional Derangement, produced by Mercurial Treatment.*

MR W. F., Dolton, North Devon, aged forty-five, bilious temperament; married, no family; has lived in service. Suffered from bowel complaint about thirteen years since, but recovered under medical treatment, and has remained healthy up to within fourteen months since, when he was again attacked in a similar manner; his medical adviser, then, thought that he was suffering from a tumour in the bowels, for which mercury was prescribed in large doses, internally and externally, in the shape of frictions; this was persevered in until paralysis supervened, so that finding himself gradually getting worse, and having heard of the Electro-Chemical Baths, he came to try them.

He is in a state of great emaciation and despondency; complains of great weakness and severe pains in the thighs, with a depression of the whole system; is subject to bilious attacks, with occasional sickness and constipation; rest, very much disturbed. He states, that during the previous week, the excruciating pains he endured prevented his sleeping during four days and nights.

Appetite very bad; felt, while taking his first bath, the pain was much decreased, and in other respects he was comfortable, complaining only of feeling rather weak.

The deposits were a few spots of mercury and a deep discolouration, produced by the accumulation of effetes of animal matter.

July 7.—Still continues very weak, but the pain is less than on the previous bath. Deposits of mercury and iron.

July 10.—Up to yesterday the improvement has been very slight, consisting only in a better sleep and a diminution in the

intensity of the pain; to-day he feels much better, less weakness, can eat and sleep comfortably, altogether improved. Deposits of mercury and iron.

July 11.—Is much stronger, going on very well.

July 12.—Feels very comfortable; has improved much in appearance; has a good appetite, and sleeps well.

July 20th.—He is now in a fair way of recovery; has gained flesh; can walk, eat, and sleep well; has nearly recovered the use of his hands; local electricity has been applied with good effect for some time past. Bath very clean.

July 24.—He has recovered the use of his hands, and can write to his friends; his countenance appears more natural; says he feels now as well as ever he did in his life.

August 19.—Mr F. has now been in the country nearly a month, and writes to say that, since he has left, he has continued to improve; he has gained flesh; his limbs are much stronger; he can use his hands freely. Not having heard from him since, we have a right to conclude that he is perfectly restored.

#### RATIONALE.

This case presents a striking proof of the misapplication of mercury. We see, by the sequel of facts reported by the patient, that his primary affection was a bowel complaint, from which he recovered under judicious treatment. When, after twelve years and four months, he became again affected with the same disorder, he was submitted to a mercurial treatment. This time, instead of being restored, his disease degenerated into a paralysis, and he got worse in every respect. The pains have been so excruciating, that during four days and nights the patient could not obtain a moment of rest.

On taking his first bath, spots of mercury were found at once deposited on the copper. The next day he felt relieved: mercury is again found in his bath, with deposits of iron, as well as in the subsequent baths he took; and in proportion to the quantity of the metals eliminated, he gets better and better

every day. The pains subside one after the other, the paralysis is removed, and in six weeks the patient is thoroughly cured.

What deduction are we authorised to draw from the foregoing remarks, but that mercury was the cause of the sufferings the patient laboured under—that mercury was the cause of the paralysis and constitutional derangement of the patient ? since, as soon as the mineral poison was removed from the body, the patient was restored to perfect health.

#### CASE VIII.—MARCH 2, 1857.

##### *Mercurial Paralysis.*

MASTER KING, aged ten years, the son of a farmer, residing in Yorkshire ; is a fine, strong, healthy boy, but he has never been able to stand on his legs ; if you hold him up by the hands, unless you support the whole weight of the body, his legs give way, and bend in all directions. He had followed all sorts of treatment, and most of the medical gentlemen of the county had been consulted in vain, and without hope of recovery. I consented to take him as an in-door patient.

On taking his first bath, a copious elimination appeared at once, and I found several patches of calomel on the sides of the copper, and many small spots of mercury at the bottom ; it was, therefore, evident that instead of having to deal, as I was inclined to believe, with a nervous affection, it was with a mercurial one. The legs were very small in comparison to the size of the body, which was very bulky ; the boy had no command over his legs ; the feet were as if dislocated ; he could move neither one nor the other in the bath ; he had the habit of bending his legs on one side, and of sitting on his feet. He was, besides, very indolent, lazy, and stubborn ; he would not try to do what he was told ; all circumstances very unfavourable for the treatment.

After a few baths, an eruption appeared on the body; first, at the lower part of the spine, which increased from that point, radiating up and down; the seat was soon covered, whilst the first eruption became confluent on each side of the *os sacrum*, and formed running ulcers, increasing progressively in size, till they were about an inch and a half in diameter; there was very little sensibility in the part, which remained nearly three weeks in this state, and required dressing before it began to diminish in intensity; frictions, manipulations, and bandages were employed to keep the feet in a proper direction: under this incessant treatment he began to progress.

About six weeks after he had been with me, I had a pair of shoes made, so as to force him, when he was up, to keep his feet in a proper position. I had also a pair of crutches made at the same time, which the boy was not willing to make use of, for as soon as he was out of sight, he used to put them aside, and sit down, as was his usual habit.

I then began to employ frictional electricity in the shape of sparks and gentle shocks; by this mode, to which the boy much objected, hiding himself, or crying when he was found, I succeeded in restoring, to a certain degree, the strength of the legs, so that he was able, after a while, to walk in the house, although very awkwardly, instead of crawling on all-fours, as he had previously done all his life.

He began from this time to improve more rapidly, and was in a comparatively short time able to go out with the servant and take a tolerably long walk in the Regent's Park.

Some friends of his father who lived in London now and then visited the child, and having favourably reported to him on the progress of the patient, he availed himself of the opportunity of one of his relatives going to his place, to bring him his son, for a mere visit; but the boy did not return, to my great satisfaction, in consequence of the trouble he gave.

I must also say that the parents found the expenses rather

heavy; also, it was not an adequate remuneration to me for the trouble the child gave.

I have since heard from the person who had recommended him to me, that the boy was progressing, and an object of wonder to those who had seen him a cripple, and thought he could never recover.

#### RATIONALE.

I scarcely intended to publish this case, but I report it for the reason that perhaps it may prove useful in tracing the simple cause, according to all probability, of the infirmity of young patients. People in the country, particularly farmers, have their children taken in the fields and deposited here and there, either on the grass or hay in the season, to let them play at their ease and without danger. A child is laid down in a damp place, and gets a rheumatism that he cannot complain of: if he cries, it is attributed to his temper or to other causes; if he does not walk at a certain age, it is attributed to the weakness of his legs, or is considered, as in this case, to be paralysis: then medical assistance is called in; the parents say their child is paralysed, and the medical adviser believes them, and treats the little patient accordingly, and does his best, as he thinks: the fashionable remedies, being calomel and mercury, are administered; the first doses do not operate, they are repeated, till at last a mercurial disease is established, which leaves no hope of recovery. This child must have taken a very great quantity, when we consider the enormous deposits of that drug thrown out while taking the baths. The mineral was located in the sciatic region, where the ulcers appeared, and discharged profusely during three weeks: it is evident, that, without the Electric Bath, he was doomed to be a cripple for life.

I think I am logically authorised to draw these deductions; since the boy was almost restored by drawing out the minerals we found in his little body.

My advice to parents, in similar cases, before looking for medical advice, would be to apply warm fomentations, to give

local warm baths, to employ frictions to promote the circulation of the blood, and excite perspiration by vapour on the part affected ; and it is most likely that they would prove the best physicians, without being aware of it.

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CASE IX.—JULY 2, 1858.

*Secondary Symptoms or Mercurial Affection.*

M. R., aged twenty-six, valet and waiter at B.'s Hotel, about three years ago contracted the disease in its most virulent form, with cutaneous ulcers. Followed a mercurial course, taking at the same time, he says, an immense quantity of iodide of potassium and sarsaparilla ; under this treatment he got better, and thought he was perfectly cured ; but a year ago he caught a severe cold, which brought on a soreness of the mouth and ulcerated sore throat, great pains in the limbs and joints, with a contraction of the left elbow, together with weakness and debility. He took a great deal of medicine, which, instead of giving him any relief, increased his sufferings and weak condition ; he laboured under great despondency.

July 3.—On taking his first bath he felt quite comfortable, experiencing a soothing sensation of his pains, and, on leaving, his mind seemed in a better state.

July 4.—Slept a little better last night, and felt rather refreshed this morning ; a perceptible cutaneous elimination is noticed in the bath, which is much discoloured with mingled deposits.

July 7.—Has omitted three days, and feels worse. He says he has caught a new cold, which in reality is but a relapse.

July 10.—About the same.

July 16.—No improvement.

July 19.—Attends very irregularly, and, consequently, does not progress.

July 28.—Is still in the same condition. On my remonstrating on the necessity of taking the bath regularly, or that he would not improve, he promised to do so.

July 29.—Slight improvement; has slept a little better, and seemed more inclined for food; the cutaneous elimination is profuse; deposits of much animal matter, and three spots of mercury.

August 1.—Feels much easier; local application in the bath, and frictional electricity applied to the arm after the bath; feels a glow of warmth in the limbs, and a little motion in the elbow.

August 3.—Doing well.

August 4.—Has slept much better; the arm moves easily; a rash begins to appear on the seat; when in the bath a profuse cutaneous elimination takes place; deposits of several spots of mercury (quicksilver), calomel, and patches of iodine; local application of electricity repeated.

August 5.—Feels he is improving; after the bath, frictional electricity applied to the arm with sensible benefit; elimination and deposits of a similar character as the last.

August 8.—The throat is more easy and less inflamed; bowels regular; same mode of treatment.

August 11.—Can now use the arm more freely, with less pain; the eruption has gained the scrotum and testes.

August 12.—Is under the effect of salivation; the inflammation is subsiding; profuse elimination; same deposits, but in greater quantity.

August 15.—Considerable improvement; the throat easier; feels altogether better and stronger.

August 18.—Is again subject to a considerable secretion from the mouth and throat, with a profuse expectoration and difficulty of breathing; the inflammation from the mucous membrane has extended as far as the bronchia; still the expectoration is not accompanied with pain.

August 19.—The inflammation of the chest reduced.

August 20.—Has now the power of exercising the arm freely,



and without pain ; the chest is much easier ; can now breathe without inconvenience. During all the time the same treatment has been continued, with the same result.

August 21.—Progressing favourably.

August 23.—Much the same in all respects.

August 25.—The throat is again inflamed and very sore. The patient is careless and neglectful ; as soon as he finds he is getting better, he takes some liberty or other which checks his progress. Prescribed to apply, externally, sedative water on the neck and the upper region of the chest.

August 26.—Slight improvement : recommend the greatest caution in diet ; drink ; smoking, and exposure.

August 27.—After being in the bath five minutes, he broke out in a profuse perspiration ; the water running over the face in large drops, which re-appear as soon as they are wiped off. A considerable cutaneous elimination also takes place, when the patient experiences at once a great relief, which continues after leaving the bath. Deposits of many spots of mercury, calomel, iodine, antimony, and iron.

August 29.—Going on well.

August 30.—About the same.

August 31.—Only a very slight pain in the throat ; all other symptoms are removed.

September 1.—General health good ; slept well ; appetite excellent ; bowels open and regular ; moderate elimination, with very little deposit.

This patient now feels perfectly well, and considers he need not take any more baths ; and although he is advised to continue them a little longer and occasionally, he declines, considering himself quite cured.

#### RATIONALE.

It is but right to observe that patients engaged in business cannot always afford the time, and often the expense, of attending

a long treatment—(this fact, very likely, deters many from availing themselves of the bath)—and cease the treatment as soon as they feel able to resume their avocations.

In occurrences of daily life, we find that reasonable expostulations are not always acceptable; and that to insist, even in the very interest of the patient, might be considered by some as a rudeness, or, by others, as proceeding from a personal motive rather than the patient's own well-being. It has often happened, when patients leave of their own accord, contrary to my opinion, that I was apprehensive of a relapse; I am, however, happy to say that I have had very few examples of it. I may add, while on this topic, that I have met with patients who called on me with the determination of taking a certain number of baths, as if it were possible to cure a disease in so many stated days; because they had heard that some had been cured, in that space of time, of diseases which they considered worse than their own: some I have declined. Some will, as it happened in this case, follow the treatment only when they find it convenient; and then it occurs, as above demonstrated, that the result is protracted, to the prejudice of the patient as well as mine.

There is generally a kind of crisis in the course of the treatment, when a decided action is produced on the organism; in this case it appeared on the 27th of August, when the patient came to me for the first time on the 3rd of July—viz., fifty-four days after he had begun the treatment; but during that time he had taken only twenty-three baths. Had he followed the treatment regularly and carefully, the crisis very probably would have taken place in the course of fifteen or eighteen days, and the cure been performed in less than half the time it has taken.

I am aware that the digressions I have introduced here and there, in the course of this little work, are out of the usual way of presenting cases; but as my mode of treatment is out of the usual mode of practice, I think I have a right to call the atten-

tion of the public on certain points of simple reasoning, of common sense, without which, perhaps, they would pass unnoticed.

The reader might, perhaps, ask why I have entitled this case *Mercurial Affection*, whilst it began with a virulent infection. He had been treated for it in the usual way; the patient thought he was cured, he having gone on well during two years. Was he cured or not? If he was cured, his second disorder, which began with a cold (and it is to be remarked that what is generally called a cold, is an inflammation), must have had a primary cause; he says nothing about that cause, but he is suddenly taken with symptoms which are equally similar to venereal and mercurial disease, the latter being always more severe in its nature. Should any one contend on the point under consideration, and pretend that when the patient came to me, he was still labouring under the first disease, it would prove that the original treatment he had followed did not cure him, whilst he has been restored to health by electricity; in which case, this mode of treatment would be preferable to the other, as being more innocuous, and without danger of a relapse; but if it has really been cured by the previous treatment, then it proves evidently that the affection he was labouring under when he came to me resulted from the effect of the remedies he had used before, and was, consequently, a Mercurial Disease.

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#### CASE X.—JULY 11, 1858.

*Cachexia, increased to a Desperate Condition by the use of Mercury.*

MR. P., of Brixton, single, aged thirty-eight, had been very healthy up to the age of twenty-two, never having suffered from acute or infectious disease. Fifteen years ago, he was seized with general debility and great pain in the stomach, which increased progressively until three years since, when he was in consequence

confined to his bed for some months. He cannot account for the origin of his complaint, but he was a great sufferer, and reduced to the worst state of bodily and mental wretchedness. He had constantly in attendance two medical gentlemen, who gradually and very slowly restored him to a comparatively healthy condition.

He has since, however, suffered more or less from the same complaint, and has consulted some of the most eminent physicians and surgeons, taking, by their advice, blue pills and submuriate of mercury, without reaping any benefit from that treatment.

He now complains of excessive debility, with occasional neuralgic pains; labours under rheumatic fever, with pains in and difficulty of using his right leg, dyspepsia, &c.

July 11.—Took his first bath, and found it particularly agreeable; feels comfortable and refreshed on leaving.

July 12.—Says he feels a little better this morning; had a rather better night.

Profuse cutaneous elimination, with considerable epidermal effetes; bath thickly coated with mingled metaloides and animal matters; recommended him to give up tea-drinking in the morning, or any other kind of warm drink, and to take, instead, cold water.

July 13.—Dyspepsia is somewhat relieved.

July 14.—Great nervous irritability this morning, with a little pain in the pit of the stomach. Applied local electricity over the region of that organ.

July 15.—About the same.

July 16.—Again very nervous this morning; has passed a restless night; chest is rather painful; applied local electricity on the left side, where he complains the pain is, and down the legs.

July 17.—Is rather better this morning; feels somewhat stronger; not so nervous; the expression of the face is more

natural. Profuse cutaneous elimination, with considerable deposits of epidermal effetes ; calomel in good quantity, and three spots of mercury.

July 18.—Much better ; the left leg is stronger since the local application of electricity. Repeated the treatment.

July 19.—Had a slight pain in the head this morning, which entirely left him after he had been in the bath about half an hour.

July 20.—Oppression of the heart, with nervousness, in consequence of want of sleep.

July 21.—Slight headache ; very restless night ; pricking pains in the back and legs, with great perspiration while in the bath ; feels much better on leaving.

July 22.—Still slightly affected in the left leg.

July 23.—Rather better this morning ; passed a more comfortable night.

July 24.—After taking the bath yesterday, felt a great thirst all the afternoon, which was relieved by drinking freely iced water. The pain in the head is gone ; feels decidedly better this morning.

July 25.—Feels much easier in the stomach.

July 26.—Rather languid this morning, with slight headache.

July 27.—Not so nervous and languid ; still very indifferent sleep.

July 28.—Progressing favourably.

July 29.—Again a return of languidness and nervousness last evening and this morning ; much better on leaving the bath.

July 30.—Slight improvement.

July 31.—Appetite better ; bowels rather costive. To take aloes, one grain, tar-water, and camphor.

August 1.—Passed a restless night.

August 2.—Slept much better ; enjoyed his breakfast this morning ; feels a little neuralgic pain along the sciatic nerve.

August 3.—Appetite improving ; gaining strength.

August 4.—Rather restless night.

August 5.—Slept a little better; appetite improving; bowels open.

August 6.—Feels much better; can move the spine to a greater extent.

August 7.—The action of the left leg has very much improved.

August 12.—Has caught a slight cold since the 8th, which has continued until to-day, during which time his sleep has been troubled with dreams; awaking in the morning with a dull, aching pain in the back of the head.

August 13.—His cold is almost gone; the action of the leg is decidedly better, and the limb stronger.

Up to this time the cutaneous elimination has always been free, with deposits of mercury, calomel, iron, and iodine, varying in quantity and density.

August 14.—Eruption coming out freely on the back and arms; great irritation on the testes. Deposit of two large clusters of various-sized spots of mercury.

August 15.—Eruption increasing, troubling his rest at night; makes him feel languid.

August 16.—Improving.

August 17.—The movement of the back and action of the thigh much improved.

August 21.—Since the last report he has felt no particular pain; considerable deposits of mercury have been observed in every bath for some days past.

August 22.—Felt more comfortable after the last bath; is very sore about the scrotum.

August 23.—Considerable irritation about the scrotum and testes, with formation of watery pustules.

August 24.—Great pain about the genital parts, which prevented him from sleeping; appetite good; bowels open.

August 27.—Great improvement in the back and legs; the

rheumatic pains have entirely subsided ; still great irritation of the scrotum, with a discharge of a yellow purulent matter from the sores.

August 31.—Up to this date, the eruption had been gaining, and now appears over the shoulders and thighs, covering a large surface of the body.

September 8.—Up to this day the patient has taken his bath daily, and the eruption has now reached its height, and begins to diminish on some parts of the body where it first made its appearance. The deposits of mercury, which have been considerable in the last baths, seem to be on the decrease. The crisis is now over: it has been of long duration, but, no doubt, for this very reason will prove more complete and effectual. The patient is now in a fair way of rapid recovery.

September 15.—Has continued taking his bath regularly up to this time, improving daily in every way. The eruption has died away; he feels no pain; all the functions are re-established; the appetite is excellent; sleeps well; is making flesh and recovering his strength, and thinks it unnecessary to prolong the treatment any longer. He therefore ceases; congratulating himself on the happy results obtained by my treatment, and expressing his thanks for my kind attention.

#### RATIONALE.

This case bears a particular character in this respect—that in the origin it was not produced by any kind of infectious disease, nor in consequence of previous illness. This kind of affection, called by the generic name of cachexia, consists in the depression of the animal functions, a want of nutrition, a lowering of the system, with emaciation of the body, and often terminates fatally for want of vitality, when we may say that life is extinguished.

The original cause of this affection may be attributed to various circumstances; most times, to a derangement of the nervous system, originating either in mental affection, the excess of venery,

or self-abuse, or other violation of some natural law. It is often the result of an inflammatory diathesis of the arteries (arteritis), which, by preventing the nutrition from following its natural course, deprives the whole organism of the restorative element: a deprivation of food or life support, as well as an excess in feeding, produce the same results, viz., when we eat more than we can digest, or the taking of substances which cannot be elaborated, but, on all occasions, the treatment must have for object to restore and rebuild the living edifice. Can mercury do this? Is it possible that this mineral, which is more destructive than any other inorganic substance, by infiltrating itself in the living tissues, causing thereby their disintegration, and separating asunder their substances, which by all means should cohere and adhere together for the formation and increase of the material forming the muscular fibres, and the molecular substances constituting the parenchymæ—could it be possible, I ask, that this mineral should be able to contribute to the reconstruction of organic living tissues? I put this question to every man of sense, whatever may be his social position.

I have recorded this case almost day by day, for a very important reason—that of bringing under the eye of the reader, and of the public in general, the very fact that Electricity, in its various applications as a therapeutic agent, is much more efficient in the removal of every kind of affection than most of the means generally employed.

In following the various phases of this case, it appears from time to time that the patient's fate is doomed; that he is getting worse and worse; that the means will fail. There is a certain anxiety of the mind to know what will be the ultimate result, and this unexpected result is the radical cure.

I wish those who may become patients of mine to bear this case in mind, as it tells a tale which will soothe their minds, and impress them with the thought, that, with due perseverance, amidst the uneven paths they have to go through, they may in conclusion arrive at the desired end.



## CASE XI.—DECEMBER 6, 1858.

*Mercurial Affection, demonstrating the Uncertain Results and Baneful Effects resulting from the use of Mercury.*

MR K., aged thirty-eight, of a sound constitution and healthy habits, has led a very active life. Having contracted a disease requiring, according to common practice, the administration of mercury, it was administered in very large quantities, without, however, producing salivation; this mineral having, according to unknown circumstances or owing to his particular constitution, been diffused in the system, instead of manifesting its effect on the mouth, as is generally the case.

He complains of great pains in the articulations of the knees and elbows, with nodes on the bones.

His medical adviser having tried in vain to relieve him by various means, such as strong astringents, &c., recommended him to take the Electro-Chemical Bath. He accordingly came; and after being a short time in the bath, he experienced a comfortable, soothing sensation over the body.

A slight cutaneous elimination was observed; some deposits of mercury and iodide of potassium were plated on the copper.

December 7.—States that after the bath yesterday he felt pains and stiffness in the knees and elbow-joints; elimination moderate; same deposits as the last; observes on leaving the bath that if he feels any difference, it is rather an increase of pain in his limbs.

December 9.—Has a swelling and pain under the left knee, also in the right toe, which is tender to the touch. He states, that some time previous to taking the bath, he passed a stone, which produced a soreness in the scrotum; the sensation has reappeared since the last bath; the urine has been thick and cloudy, which induces him to think that the kidneys are still out of order. Applied local electricity to the part, which pro-

duced immediate relief, so that he could take hold of the affected part, when he found the swelling reduced and the organ softened. Similar elimination and deposits, but in greater quantity than the last time.

December 10.—Has felt more comfortable since the last bath ; thinks he is rather better ; the pain has not returned since yesterday. The local application is repeated, with a similar result ; in addition to which, galvanic shocks are administered to the elbows and knees, which cause a rash to break out over the knee and the bend of the leg. This operation having proved rather painful, the patient rested for two days.

December 13.—Feels very far from well to-day ; pain and swelling of the testicle returned ; the boil or cyst under the right knee so very painful that he can scarcely walk, while the friction against the *gemini* produces a most wearying pain. After being in the bath a short time, he felt comfortable from the local application, which relieved the testes ; while, after remaining in half an hour, the knee became more supple : the cutaneous elimination is very profuse, large gaseous bubbles rising to the surface of the water, and remaining there for some seconds before breaking or dispersing ; this is particularly perceptible along the spine. Still easier after being in three-quarters of an hour. On leaving, he did not feel so chilly ; was more elevated in spirits ; the limbs had more suppleness and freedom of action. There were several spots of mercury of various sizes, but a very large one, plated on the copper of the bath, with other morbid matters.

December 14.—Improving.

December 15.—Has felt but indifferent since the last bath ; the *orchis* still continues swollen and painful, with pain in the region of the kidneys.

Has consulted Dr W., his medical adviser, as to the state of the *orchis* ; and he tells him not to be alarmed, as it is a result, probably, of his present mode of treatment.

December 16.—Has felt better since yesterday; there is still much swelling and pain; the eruption under the knee is getting better, and the pains in the joints are subsiding; recommended to apply camphorated ointment on the parts affected on leaving the bath.

December 17.—Walking is still very painful, and the slightest pressure hurts him; tenderness and hardness of the bag loosened, and the swelling somewhat reduced; two small spots of the nature of a blind boil have appeared on the *verpa*. Omitted the baths for two days; local applications have been continued up to the present time.

December 20.—Feels about the same; the rash is leaving him, but the itching at night is so intolerable that he can only get relief by getting out of bed and giving himself a good brushing down.

Blind boil gradually going away; swelling and pain less; but a great itching about the scrotum.

December 21.—About the same; cutaneous eliminations very free and abundant, with deposits of spots of mercury, calomel, and iron, with traces of iodine and lead; to use a suspensory bandage.

December 23.—Omitted one day. Thinks he is making a little progress towards improvement; bandage has given a great relief; feels easy in the bath.

December 27.—Omitted several days. Does not feel so much lassitude, owing to the pain being relieved; appetite good; bowels regular.

January 3.—Omitted a few days. Does not require to take the baths continuously, as he is regularly improving.

January 4.—Steadily getting better and stronger, the pains leaving him progressively; can bear to rest slightly on the elbows and knee-joints, and the nodes getting less; cutaneous elimination moderate; still some spots of mercury and other slight deposits.

January 6.—The gradual improvement has reached a satisfactory result ; and the patient intends, if there is no relapse, to leave in a few days.

January 10.—Took his last bath ; the patient considering himself so much restored in every respect, that he may, without inconvenience or danger, give up the treatment, as he has not had any relapse, but even continued to progress when he omitted taking the bath for several days.

#### RATIONALE.

This case is an elucidation of the various effects produced by mercury ; it proves that practitioners cannot depend on its *modus operandi*. It is generally given to produce salivation, and it has become a sort of technical expression with practitioners to say, It is requisite to touch your mouth ; and when the mouth is not touched, it always proves an unfavourable prognostic, as this case demonstrates.

Sir Astley Cooper, in his lectures, said that mercury, as a remedy, was the opprobrium of the Profession ; and a great many other distinguished members in the French, American, Italian, and German schools have emitted the same opinion. In the third edition of my Treatise, I intend to demonstrate the inutility of this mineral as a therapeutic agent, its unphilosophical employment and its baneful results. I am quite aware that it will not be the means of getting the good-will of many ; but truth is truth, whatever may be the opinion of men and the power of routine. The man who devotes himself to the relief of suffering humanity must take his chance, and work for the public welfare ; it is his mission : if he brings upon himself the animadversion of his colleagues, he finds, on the other hand, a sweet compensation in the gratitude of those he has snatched from the horrors of a languid, suffering, and desponding existence.

## CASE XII.—DECEMBER 6, 1858.

*Mercurial Constitutional Affection.*

MR G., aged thirty-six, shopkeeper, married; has a family. Nervous temperament, very irritable; has led a sedentary life. He suffered formerly from bilious attacks periodically, and with obstinate constipation terminating in dysentery; he attributes the only improvement he received on this occasion to Hydro-pathic treatment. He also has been under a course of mercury, from which, according to all probability, he now suffers severely in the shape of heavy stupor in the head, which compels him to keep his hair cut close as a means of relief; he, however, feels very drowsy and heavy immediately after business, when nothing can keep him from going to sleep: this also happens towards morning, on waking. Pain mostly seated in the head; he occasionally feels pains in the elbow and knee joints; teeth very much discoloured; gums very sore, as also the jaws, with a disagreeable coppery taste in the mouth of a morning; has had slight ulceration on the tongue and gums, which are much wasted, causing the teeth to appear elongated.

After remaining in the bath half an hour, the mouth became rather sore, and had a very coppery taste in it.

Prescribed to let the water of the bath to enter the mouth by keeping it below the surface, and to use, occasionally, anti-mercurial gargle. He adds to his remarks of yesterday, that he has lived a regular and temperate life, and has drunk nothing but water for the last two years: states also, that he forgot to mention that he suffers from twitches in the knees, jaws, and other parts.

The bowels being rather constipated, the positive conductor is applied in the water over the abdomen. This produced a distressing sensation of burning at the time, but on leaving the bath he felt quite refreshed, and, to use his own words, "as if he were going out of a balmy summer's morning."

December 8.—Has felt very uncomfortable during the past night; restlessness and numbing headache, lascivious dreams, &c.

The gargle has caused a very free expectoration, and the gums, mouth, teeth, &c. are much better; the ulceration on the tongue is gone; still feels twitches in the jaws, but not in the knees.

To immerse the back of the head in the bath. Cutaneous elimination moderate; deposits of calomel, iron, and iodine.

December 9.—Has slept better, but still troubled with fretting dreams; the fore part of the head more free from pain, but the back part still feels dull and heavy; in all other respects improving. Bowels regular since the application of local electricity to the colon.

To apply sedative water to the cerebellum three times a day.

December 10.—Better this morning in every way.

December 11.—Slight return of pain in the head; feels occasionally better and worse, and remained in that variable condition up to his ninth bath, but he has not been troubled with drowsiness since the third bath; the mouth has been rather better; rest comfortable at night, and free from dreams. The cutaneous eliminations are now becoming very abundant, and the deposits numerous, such as urate of soda, arsenic, antimony, iodine, and iodide of potassium, intermixed with spots of calomel.

December 18.—Passed a wretched night; dreams frightful; seems as if he had a ring freezing round the top of the head; mouth quite dry and sticky; cannot assign any cause for this, as he had done nothing to excite himself in any way since yesterday. To continue local applications more vigorously.

December 19.—Felt very fair since yesterday; passed a comfortable night; no dreams; seems much relieved.

December 20.—Improving very fast; mouth much better; he almost fancies the mouth is perfectly well.

December 21.—Feels better since yesterday; back of the

head much easier; the taste is rather worse, and the itching is so great that it is but with a great determination he can remain in the bath. He is rather despondent; it is only by pointing out that the various symptoms he had experienced were the precursors of a favourable crisis, that I succeeded in calming his mind, making him understand that he was just under the powerful influence of the treatment, which, by acting forcibly on the nervous system, disturbed it for the present, but was a favourable prognostic as to a return to perfect health.

December 22.—He was to-day put in the spinal bath. On entering it, he felt a warm taste on the tongue, at first very coppery, and the electric current acting very powerfully on the back of the head; he soon afterwards broke out into a profuse perspiration, large drops trickling down the face, which has never happened before, and feels much soothed by this new application. Cutaneous elimination coming out very abundantly; so much so, that it loops the whole body.

He experiences a great pressure and new action at the back of the head, but on no other part of the body; this feeling being entirely different from what he has felt before.

Left the bath much better in every way.

December 23.—Return to the ordinary bath, in which he feels quite comfortable in all respects. All the previous symptoms he complained of before have disappeared since yesterday, and he feels quite well, and restored in every respect, thinking that he does not require taking more baths. I advised him, however, to try one more.

December 24.—Took his last bath; feels perfectly well, with no probable appearance of relapse, and left to return home, in Ireland, quite satisfied with the favourable result of my mode of treatment.

#### RATIONALE.

We see from the details of the above case, that the patient

was labouring in the first instance under a liver complaint, complicated with a digestive derangement and chronic inflammation of the bowels, and that he was relieved by Hydropathic treatment. Till then, the affection was limited to the viscera; but as soon as the patient had followed a course of mercury, we see all the symptoms assuming a different character:—the mouth is ulcerated; the gums spongy, and retracted from the teeth; the throat sore, with a coppery taste in the mouth; languor and stupefaction; pain in the articulations;—all kinds of symptoms which cannot be attributed to the original disease, but which characterise what is generally called secondary symptoms, and which should be classed amongst mercurial affections, which are, above all others, the most destructive and cruel, as there is no perfect cure to expect unless by removing the metal from the system, and no means to remove it radically by any therapeutic agent but the Electro-Chemical Bath.

The above unfortunate patient is reduced to a desperate condition by excruciating sufferings of every description, and, after having lived a regular and temperate life, is subject to a kind of disease which, it may be suspected, is the result of inconsiderate conduct.

Let me intimate therefore, *en passant*, that no one has a right to pass an inconsiderate opinion on mercurial affections. I have seen that medicine given to babes and elderly persons of both sexes, for disorders of little importance which could have been cured by the simplest means, and I think this present case is a proof of it, when, notwithstanding its severe character, it has been removed in the course of eighteen days without the patient taking a grain of medicine.



## CASE XIII.—MARCH 1, 1859.

*Mercurial Affection.*

MRS M., a lady aged twenty-eight, has had no family, but was nevertheless treated for a disease of the womb. Leeches, cauterisation, and the repeated use of the speculum brought on such an inflammation, that her medical adviser, embarrassed to find the means of reducing it, had the ingenious idea of making some large mercurial boluses to be introduced into the vagina two or three times a day, and with the greatest success, for in a short time she was salivated, and every tooth in her mouth became so loose that she was unable to masticate, and was obliged to live on slops. The constitution was soon impaired; weakness and debility were the result, and life became a burden. She had consulted her dentist, who suggested the extraction of all the teeth, which, he said, would not cause much pain, as they were so very shaky, and the gums so retracted, that they would soon fall out of themselves. It was in this deplorable condition that this lady applied to me as a last resource, and took her first bath.

I placed her head so, that by keeping the mouth open, the water of the bath could get in, and by so doing submit the mucous membrane to the participation of the effect which produces the elimination on the body. She submitted willingly to all my suggestions, being very anxious to get relief and save her teeth. Notwithstanding the apprehension she entertained of such a mode of operation, she felt comfortable in the bath, and found, on leaving it, that her mouth was fresh and more easy.

The cutaneous elimination was free; calomel predominated amongst the deposits, also iron and antimony.

March 2.—Mrs M. states that she has been comfortable, and slept better than usual. Deposits of iodine, iodide of potassium, and a little arsenic.

March 3.—About the same; the cutaneous elimination increases; prescribed to immerse all the head in the water, and occasionally the mouth. Deposits of a few spots of mercury below, calomel along the upper sides, and iron and antimony intermixed in other parts.

During the eleven last baths she took, the operation was repeated in the same way, with the same benefit, progressing steadily each time. Elimination still profuse; deposits of larger quantities of mercury successively in each bath; the calomel also has been found in great profusion, with iron and antimony.

March 14.—The patient now feels a great improvement in all the functions; she can walk with comfort, and eat with ease substantial food; advise her to call on her dentist, and have her teeth scaled to remove the tartar, which prevents the gums from expanding. Elimination as usual; deposits still mercurial, with arsenic and urate of soda.

March 15.—Mrs M. has been to her dentist, who finds her mouth in better condition, but refuses to touch her teeth, because fifteen of them, he is sure, would come out. She states that she feels a great deal better in every respect, but expresses some uneasiness about the womb: prescribe the use of the perforated zinc speculum. After the bath was emptied, the bottom was found covered with numerous spots of mercury, many having a central globule: they were collected, and amounted to 19 grains, which were preserved in a bottle. (This was done before her own eyes.) The speculum was silvered by mercury on the surface and inside the tube.

March 16.—The various applications suggested from the beginning were followed up daily, and the improvement in every way visible. Mrs M. is in perfect delight; she only complains of a disagreeable feeling of cold in the whole body. Elimination moderate; deposits of numerous minute spots of mercury, not sufficiently large to collect.

After the bath, she is submitted to the frictional electricity, by taking sparks from the whole body until she feels in a comfortable glow.

March 23.—During the last six baths, the same treatment has been repeated, with the same favourable results. I examine the mouth,—the gums have lost their livid colour and swelling: I advise local frictional electricity over the gums, which was done immediately after the bath. Deposits composed of many spots of mercury, iodine, iron, iodide of potassium, and antimony. I then proceeded to the application of frictional electricity, as above mentioned.

Mrs M. is placed on the insulating stool, with a band of flannel over the jaws, and I draw sparks from the gums, in the direction of the roots of the teeth, to their junction with the crown. This operation is rather painful; it brings tears to her eyes, but proves very beneficial: it brought first a slight sanguine turgescence. In a few days, on repeating that operation, the gums seemed to grow. I advised her to go to my own dentist, Mr Woodhouse, 1 Hanover square, and gave her a note recommending him to be very cautious. The operation having been successfully performed, he found that, except five teeth, the others were sound enough to expect that they would stand. Mrs M. came back very satisfied with Mr W.'s prognostic, and the treatment was continued as before. The gums of the front teeth were growing satisfactorily, the roots being almost covered, and the portion between the teeth shooting down, so to speak, in their natural places. In other respects Mrs M. feels much better: she walks well, and makes it a practice to do so; all the functions are regular; she sleeps well, has a great appetite, and digests everything. Still the cutaneous elimination and deposits continue about the same; which proves that there is much behind, which requires to be eradicated. Her husband now got an appointment abroad.

The friends and relatives of Mrs M. advised her to remain

and continue the treatment ; but she thought it her duty to follow her husband, and started with him accordingly, to my very great regret. I have not heard of her since.

#### RATIONALE.

This interesting case serves to corroborate the correctness of my views, differing only in its peculiar features, and is also illustrative of the various applications of the several kinds of electricity. With this case is related a curious episode, which I think is worth relating, as it bears forcibly on the whole subject.

A friend of Mr M., Captain D., had taken a great quantity of mercury whilst at Malta ; still he could not be salivated. He has ever since been a great sufferer, and used to complain energetically of what he called "this monstrous mode of treatment."

One day, whilst at Mr M.'s house, he was expostulating against the use of such dangerous drugs as mercury, when Mrs M. advised him to take the Electro-Chemical Bath, as a means of extracting the mercurial poison from the system. He had not heard of it before, and could not believe in the possibility of extracting the mercury by any means whatever. Mrs M. insisted that it was done, and offered as a proof to bring him the bottle containing the mercury collected under her own eye out of her bath.

When he saw it, he laughed at her, asking her if she could believe in such humbug and deception, saying—"Be sure, madam, that if you have seen that collected in your bath, it is because they have put it in." Mrs M., however, prevailed on him to call on me, to hear what I had to say ; to see with his own eyes and to judge for himself. Accordingly he paid me a visit. We had a long conversation ; but, in spite of all, he could not and would not believe ; in fact, he was a systematic sceptic. Persuaded at length that a trial could not do him any harm, he consented to venture on a bath, on condition that it should be prepared

before him,—which was done, according to his desire. He looked suspiciously at every thing and every one, and got into his bath convinced that, as far as he could judge, there could be no imposition. When he got out of it, we found and collected before his eyes about double the quantity of mercury that had been collected in Mrs M.'s bath. (I must say that it was the first time, and is so still up to the present, that mercury has been found in the form of globules in a first bath.)

Captain D. wondered: it was incomprehensible; but it was so, and he could not deny it;—he was at once a convert; he would write to some friends, sufferers like him from mercury, some fellow-officers retired in the country. So he did, and received from them similar answers to those he had given to Mrs M., calling him a simpleton and refusing to believe his statement.

The following is a narrative of his case.

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#### CASE XIV.—MAY 1, 1859.

##### *Mercurial Rheumatism, resulting from Secondary Symptoms.*

CAPT. D., gentleman, aged forty, single, was originally of a very good constitution, had never suffered from any complaint up to 1848, when he was taken with several successive attacks of rheumatism, resulting, he thinks, from a particular disease. A short time afterwards, being at Malta, he again contracted the same disorder in the most virulent form. Amongst the various drugs he had taken, mercury was repeatedly administered in very great quantity; but salivation could not be produced, and the system was each time left in a worse condition. Being unable to get any relief at Malta, he determined to go to Tuscany, for the advice of an Italian physician, in whom he placed great reliance; while on board, in his journey, he caught a severe cold, which brought on what he denominates "a

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*rheumatism*," and ophthalmia in both eyes, with intense shooting, lancinating pains all over the body. He never recovered from that time: every change of weather affects him severely; at night, his feet are drawn up, the sinews are strained and tense; he also suffers acutely in the head; the eyes are weak and painful, with whitish nebulae over the cornea, and the vision much impaired; his appetite, which was formerly good and regular, is now capricious, and digestion difficult; he has no taste for food; he has lately contracted a new cold; his feet are also affected by rheumatic gout; the great-toe joint of the right foot is almost immovable.

This patient is the gentleman alluded to in the preceding case as being a great sceptic.

When in his bath, he expressed great surprise to find it so comfortable, and looked at the elimination that took place with astonishment. Amongst the various deposits plated on the copper, some blackish globules are moving in the bath; they are mercury enveloped in animal matter, and weighed 38 grains.

I must here be allowed to state, that in the first edition of my Treatise, which was founded on mere theory, I advanced that mercury could not be found otherwise than plated on the copper. This opinion was based on the fact that mercury applied on copper, gold, &c., immediately penetrates the pores of the metal when it is clean; but experience has taught me that when animal matters are first eliminated from the body, the condition for plating being destroyed by the presence of animal effetes, mercury remains in a liquid state, and it is most likely that it now and then happens that globules of mercury are carried out with the water, without our being aware of it.

I trust the reader will not consider as out of place the digressions I now and then introduce in these pages. I intended to embody them in my Treatise, but I have not the time now to remake it, whilst I am most anxious to convey my convictions to the reader: I, therefore, throw my thoughts on paper when

they cross my mind, and when they come to corroborate by facts the subject I am treating of.

Let us return to the case.

May 2.—The patient is much the same as yesterday: however, he thinks his head more easy. Cutaneous elimination increases: deposits of mercury plated on the bottom of the bath; strata of iron, iodine, and lead on the sides.

May 3.—Going on favourably; more easiness and less pain.

May 4.—Capt. D. says he felt during the whole night a mercurial taste in the mouth, with a nasty dryness about the gums and tongue. He also remarks, that he has been regularly drenched with mercury, and that he expects a sufficient quantity of mercury will be extracted from his system to make a cannon-ball: states also, that once it seemed as if the whole of the mucous membranes had come away from him in a mass. Feels more comfortable while in the bath. A rash begins to appear on the upper region of the chest; prescribe that the back of the head and the lower jaw be immersed in the bath.

Elimination very free; the bath profusely coated with patches of mercury.

May 5.—Cannot keep his head immersed as yesterday, because after having left the bath there came on a deafness in the right ear, which continued until this morning; besides which, he did not feel at all well in the afternoon. He also had a purging stool later in the day, which he attributed to the working of mercury in his inside; he also had last night an extraordinary sensation about the head, the tongue cleaving to the roof of the mouth, and like a beginning of salivation.

Eliminations and deposits as usual.

May 6.—Feels better; urine free, and tolerably clear. Deposits of mercury, iodine, and much arsenic.

May 7.—Is to-day in very good spirits. States that, after his bath yesterday, he ate three-quarters of a pound of rump-steak, with vegetables, and could have eaten more had it not been for

shame : says he had not done such a thing for years before, because he had the full enjoyment of it. Digestion is improved with the appetite. Elimination abundant ; free deposits of mercury, iron, lead, and arsenic.

May 10.—One of the greatest discomforts was, before beginning the treatment, to be subject to wretched nights of waking and pains. Now, he sleeps well, gets rest, and awakes refreshed ; his general health is greatly improved. Enjoyed a good luncheon yesterday after his bath ; he speaks of it in a joyful manner, and is now jocular in his conversation.

May 11.—Had last night a slight return of the queer sensation he had before experienced in the back of the head, with a sort of creeping feeling on the brain. He thought he had got rid of this strange sensation, to which he had been subject for the last two years.

Large deposits of mercury, with iron and arsenic, continuously with the increase of the elimination of mercury. The salivation has been progressively increasing, so that he expectorates now about two quarts of saliva in the day ; half that quantity passing off during the time he is taking his bath.

On leaving, he met Mrs M. in the waiting-room, and thanked her for having brought him to me, stating that the bath had done him a wonderful deal of good.

May 12.—Complexion and skin are becoming much clearer and natural ; the eruption has been extending on the body, and reached to between the toes, proving rather painful. Deposits as usual ; large patches of calomel at the end of the bath.

May 14.—On entering the bath, the itching commenced immediately, and became so irritating in a few minutes, that, although the battery power had been diminished, and the water softened with bran, he could not remain more than a quarter of an hour in the bath.

May 16.—Change the usual treatment to a foot-bath, with an electro-magnetic current. He could hardly support it at first,



although it was at its lowest power ; but after a while, when the current had established its passage through the tissues, we were enabled to increase the power, which he bore very comfortably. This application stopped the salivation. This apparent curious fact was explained by finding the negative plate placed in the bath entirely covered with minute spots of mercurial deposits—a phenomenon which had never been noticed before, but which demonstrates the power of electricity to produce an immediate revulsion.

May 17.—Has felt during the past night considerable tingling and itching in the feet, and shifting pains down the legs, as if, to use his own words, the mercury was moving in his body, and going to the lower extremities : but still he feels more comfortable on the whole. He thinks it would be advisable to use alternately the plain and foot bath : accordingly, he this day takes the general bath. He bears it well, without the irritation he had complained of before. The cutaneous eruption has considerably subsided ; he now feels perfectly comfortable in the bath. Deposits of an appreciable quantity of pure mercury, also iron and iodine.

May 18.—Again takes the body-bath, in consequence of feeling a general uneasiness ; is better on leaving.

May 20.—Omitted taking the bath yesterday. Says that, unless he feels special inconvenience, he will take the bath occasionally until all the mercury is removed. Feels better in every respect, and enjoys his bath, which presents a new peculiarity with regard to the deposits, viz., that in addition to a considerable amount of mercurial deposits, there is a large quantity of sulphur and antimony.

May 21.—About the same.

May 22.—Complains of sufferings in the head, which he attributes to the influence of the easterly wind.

May 23.—Changes to the spinal bath (which has for object the passing of the electric current direct from the head and

spine to the feet). He says that he did not get relief in the head, and he certainly would not use that bath any more ; it makes him so very ill, and he does not like tampering with the brain.

May 24.—Notwithstanding the bitter complaints of yesterday, Captain D. is a great deal better to-day ; he has returned to his former state of health ; his predisposition to a relapse is only of a very temporary character.

June 17.—Has not taken the bath for three weeks, having been in the country, but feels that an occasional bath may yet do him service. He is now labouring under a severe cold, from exposure while in the country. After taking the bath, he is at once relieved from the chilliness, heaviness, and stupor he was complaining of.

June 18.—Better this morning than he has been for some days.

June 19.—Salivation coming on again, though in a lesser degree than before ; suffers from a little irritation of the skin, resulting from a rash about the body.

June 21.—Feels well, although the cutaneous irritation is increasing.

June 22.—Improving.

June 23 and 25.—Continues favourably.

June 26.—Salivation, which had reached its crisis with yesterday's bath, is much less to-day.

June 27.—The salivation is almost stopped to-day.

June 28.—Feels very comfortable, and is very cheerful ; appetite, digestion, and general health very satisfactory.

June 29.—The salivation is quite stopped ; the cutaneous irritation greatly diminished ; the mouth comfortable, which enables him to enjoy his food with increased relish.

July 1.—Has discontinued for more than a week, and complains of a slight return of heaviness in the head, sluggishness of the digestive organs, and uncomfortable derangement of the

whole system, which, I found on questioning him, is the result of some excess in his daily habits. Is very comfortable in his bath, which always refreshes and revives him. Continues still from time to time to throw off a little mercury.

July 11.—Very much improved since the last bath. The cutaneous elimination is but moderate, sufficient to carry off the natural effetes of the system; the patient is living tolerably well, if not too much so.

July 14.—Continues well; is cheerful, and has nothing to complain of.

Since this time Captain D. has taken an occasional bath, which always refreshes him. No new symptoms have appeared; and considering himself quite safe for the future, he is going to start in a few days to accompany his brother to Canada.

I must here mention a little anecdote :—Amongst the particulars of daily occurrence in the bath, and according to the case, the patients are sometimes prescribed to immerse their heads in the bath, or to let the water come into the mouth for a little while; so it was prescribed for him; but it happened that the Captain, who is a good diver, was able to remain above two minutes under water. One day, the bath attendant on entering his room found him motionless at the bottom of his bath, and gave the alarm. We went to the room; the patient was comfortably in the natural position. My object in mentioning this trifling circumstance, is to inform the reader who may require my assistance, that those immersions are without inconvenience or danger, and in many cases prove eminently beneficial.

I have had a lady patient, who was the first who of her own accord did the same thing.

#### RATIONALE

The above case is most interesting for many reasons. First, it portrays an obstinate sceptic who will believe neither the evidence nor the experience of his friends; for whom sage

reasoning has no weight, ironically smiling at every argument. There are many of that class, without speaking of those who deny what they do not understand. Here is a fact, and, as I have already said, facts are stubborn things to contend with.

The second part of the case shows the preconceived ideas of some patients on the character and nature of their affection. What does this patient complain of?—Rheumatism. But what cause does he assign for it?—None. I have described, in the Introduction, what a simple rheumatism is—viz, the retention of the matter of perspiration, provoked by cold. The patient does not allude in any way to a cold, but complains of rheumatismal pain: if this affection is not the result of a cold, what is the cause? The reader knows it already: it is the retention in the system of mercury, iodine, and iron—substances found in his bath from the commencement of the treatment to the end. We have rheumatismal affections, therefore, which do not depend upon the action of cold only on the skin, nor the retention of the effetes of the body, but arise from the introduction within of drugs—of substances a great deal worse than the matter of perspiration, because they are not only inert and inassimilable, but of an inorganic, destructive, and poisonous character.

A particular phenomenon worth being noticed in the case is the presence of salivation, which could not be produced by taking an enormous quantity of mercury, and which was brought on by the taking of the bath; proving thereby, that the dynamic power of electricity pervades everywhere, and stirs and removes in the tissues every kind of deposit or insolite accumulation.

There are a great many sufferers, according to my experience, who often, mistaking the primary cause, have no idea when they experienced the rheumatismal pains, that mercury is at the bottom of it, and consequently do not look for the means of getting rid of it.

However, they will, I trust, understand by the above case, that mercurial rheumatism is a much more serious thing than common rheumatical affection, and that it can only be removed by the means employed in the case now, under consideration—that they are amongst the number of diseases hitherto called incurable. Let it be a warning to the public, and let those who deny the fact prove that it is not so !

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CASE XV.—MARCH 7, 1859.

*Case of Mercurial Affection.*

MR B., aged seventy-two, married, has a family ; states that he has had a severe inflammation from cold, and took a deal of hot medicine and calomel. He had also got a disease in its malignant form, for which he took blue pills and used mercurial frictions, when he began to suffer from a sore throat ; the mouth and gums became ulcerated. The nose is now diseased, and stopped up at the bridge, and for a long time its natural secretion was suspended ; it began to reappear a little. He is satisfied that his disease arises from the administration of mercury. Experiences a stiff, disagreeable sensation across the loins, and a dead feeling over the body. He felt comfortable on entering the bath. After a short time, the water was covered with a considerable quantity of scaly effete and animal matter, the cutaneous elimination being very little. Deposits of calomel and iron.

March 8.—Has felt a little more comfortable about the body after his bath yesterday, the secretion from the nose being slightly improved. Appetite good ; bowels regular : not so much epidermic effete deposits ; few spots of mercury, mingled with iodine and lead.

March 9.—In order to stimulate an eruption, the positive pole is applied under the water to all those parts of the body

where pricking is felt, when he observed that he felt as if he were lying on a bed of nettles.

March 10.—Is about the same ; still complains of deadness and want of sensation about the body. Continued local application with good effect, as a means of increasing the action of the skin. A slight rash breaking out about the neck and thighs.

March 11.—Feels more comfortable, and generally better ; rash has been increasing over the body ; local application becomes now rather painful.

March 12.—Improving ; remarks that before taking the bath he used to feel as if he had been *hide-bound* for years, which feeling has been gradually leaving him since he commenced my treatment ; the pricking sensation is less now, and the skin more sensitive to the touch ; the rash is coming out so freely that the local application can hardly be borne ; feels more freedom when moving his limbs.

March 14.—Going on favourably.

March 15.—Again noticed that the better action of the skin brought on a gentle perspiration during the night, which he rarely experienced before, even after violent exertion. Deposits of mercury, iodine, and iron.

March 16.—Complains of a slight cold, which he thinks is likely owing to the perspiration in the night.

March 17.—Improving in general health, and the pricking sensation across the loins is much reduced ; the nose now discharges freely a clear mucosity, and he breathes better through the nostrils ; the cutaneous rash has now assumed a pustular appearance, with a centre of yellowish matter, particularly over the chest ; the seat is so sore that he can hardly rest on it in the bath.

March 17.—Nothing particular ; the symptoms assume a better character.

March 19.—Feels better in every way ; the cutaneous eruption has reached the state of a crisis.

March 21.—Ordered to take the spinal bath, for the purpose of restoring the nervous system to its functions, by removing any deposits along the chord ; this desirable effect is produced at once, and the patient leaves in a state of restoration beyond his most sanguine expectations.

#### RATIONALE.

This case, which corroborates the correctness of my doctrine, becomes particularly interesting, in consequence of the great age of the patient, seventy-two years old, and proves that this mode of treatment is equally beneficial at all periods of life. I would have liked to obtain more details of the earlier period of his career, but he was unwilling to say more : at all events, the fact remains—viz., that he was conscious of being ill through the deleterious effects of mercury ; that this metal, and other somewhat similar substances, having been eliminated from the system, the patient was cured without taking a single grain of medicine.

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#### CASE XVI.—JULY 20, 1859.

##### *Mercurial Swelling of the Knees.*

MR G., aged twenty-three, single, clerk in an office, got a disease about four years ago ; was treated, he thinks, only with cubebs or copaiba.

He attributes the present complaint (rheumatic gout), from which he now suffers, to the habit he had of riding outside of the omnibus in all weathers, and remaining all day in damp clothes. The beginning of his affection dates from the time he was under treatment, when it first showed itself by a slight swelling in the right knee, which gradually increased, then shifted to the left one, and then to the ankle, producing in-

creased stiffness and enlargement of the joints ; which for a long time he did not take notice of. Now, they are swollen and stiff ; he has a great difficulty in bending them at all, and can scarcely move about : however, a remarkable thing is, that from the commencement there has been no pain.

Mr G. during all the time has been under several physicians ; he was advised to have a change of air, and went to Malta, but he derived no permanent benefit.

He further states that while playing at quoits, last autumn, he sprained himself all up the groin, which has caused glandular swelling, giving at times very acute pain. Notwithstanding, the appetite is good ; bowels regular ; urine free, and natural in colour and quantity.

On taking his first bath, he felt comfortable after a few minutes. The cutaneous elimination was moderate ; the water became covered with epidermic scales, which were found deposited at the bottom of the bath, with a considerable quantity of animal effetes.

July 21.—About the same.

July 22.—Felt much stronger on his legs yesterday ; says he has felt better than usual ; has had a little pain in the groin this morning, but only for a short time ; his spirits very good. Cutaneous elimination moderate ; deposits of calomel, iodine, iron, and much arsenic.

July 24.—The right knee is evidently less swollen, and there is a feeling of comfort and strength in the lower extremities ; in other respects is generally well. States that, being very fond of dancing, he practised that exercise up to last Christmas, and thinks that by forcing himself in the accomplishment of that practice, he has rather aggravated the pain in the groin. Deposits of sulphur in great quantity ; also potash, calomel, iodine, and a little arsenic.

This case requires a particular application of local electricity, for promoting the resorption of the fluid effused in the joints.



I contrive to have a bar of iron long enough to be applied to the two knees at once, that the patient may himself shift while in the bath, from the bend of the knee to the top, and *vice versâ*, according to his own feelings.

July 25.—Does not feel so well to-day ; the knees and ankles are rather more swelled. The patient states that those changes are of common occurrence ; that they happen occasionally without his being able to account for it ; that the knees will for two or three days greatly diminish, and again return to a larger size.

Cutaneous elimination increased ; deposits of calomel, iodine, iron, arsenic, and lead.

July 26.—Feels better and stronger in the legs, but has a severe pain in the groin. Had the ill-luck, last evening, of being bitten over the hand by some gnats, which at the time caused him intense pain and a great swelling and stiffness in the finger, but he feels better on leaving the bath.

July 27.—About the same as yesterday ; the hands are improving.

Deposits of calomel, iodine, and two spots of mercury (quick-silver).

July 28.—Has felt pretty well since yesterday : the pain in the groin has disappeared ; the ankles are a little more swollen. An eruption is coming out under and above the knees where the electric iron bar has been applied : it now gives great pain when the rod remains too long on the same spot, causing a sensation of burning ; thus the patient is obliged to shift it oftener.

July 29.—The legs are getting stronger ; the patient is able to bend his knees to a certain extent ; the eruption is increasing on that part ; general health very good. Elimination very abundant ; large deposits of calomel, iodine, and iron. Cannot bear the bar now more than two or three minutes on one spot.

July 30.—Feels generally well ; says he found his legs very much stronger yesterday, and can now account for the beneficial effects of the bath.

August 1.—Was rather stiff last evening, but got up well this morning ; the pain in the groin is reduced to a mere sensation—is conscious that he is improving.

August 2.—Feels his strength increasing ; is able to get in and out of the bath with very little trouble.

August 4.—Has omitted a day. Continues to get stronger, but has a great deal of pain under the knees ; the pustules of the eruption having spread in size, and forming small ulcers, discharging a little purulent matter.

August 5.—The feeling of weakness he used formerly to experience, and which occasionally amounted to pain, owing to the extreme stiffness of the joints, is now almost vanished.

August 6.—Better than he has been for a long time past.

August 7.—Has omitted two days, and does not feel so well ; to be attributed to his having neglected to take the baths.

The cutaneous elimination is more abundant than ever ; deposits of a great quantity of mercury.

August 10.—The swelling of the knees and ankles is greatly reduced ; the shape of the bones beginning to appear underneath the teguments.

August 11.—Going on about the same.

August 12.—The heads of the bones forming the articulations are now distinctly perceptible. The cutaneous elimination is still increasing to such an extent, than when it is removed from the body, the surface of the water appears quite seething ; the deposits also are more thickly coated on the copper.

August 13, 14, 15, 16, 17, 18.—Progressing slowly, with intermittence of various feelings.

August 19.—Much better ; articulations more distinct ; the kneecap, bones, and attachments of the muscles can now be felt.

August 20.—About the same.

August 22.—Continues to improve.

August 23.—Progressing very fast ; the contraction of the muscles of the left knee very perceptible to the eye.

August 24.—The rash over the chest is now dying away ; but under the knee it is still sore and painful, evincing pitted ulcerations.

August 25.—The swelling on the left knee has partially returned to the right knee ; so they are both of the same size, showing a disposition to the return of an equilibrium between both knees, which he can bend much more easily.

August 29.—Omitted three days, having felt disinclined to take the baths in consequence of the heat of the weather, and the extreme lassitude he was labouring under.

The patient is still subject to a variety in the paroxysms of his affection, but they are all very much diminished in intensity. Cutaneous elimination is still considerable at times ; deposits numerous, calomel and mercury being more abundant than the others, which are composed of iodine, iodide of potassium, antimony, and urate of soda.

August 30.—The patient states that he feels much better to-day.

August 31.—About the same ; decidedly improving in every way.

September 1.—Progressing satisfactorily.

September 2.—Mr G. continues to get on most favourably, but regrets to be compelled to discontinue, in consequence of important business which compels him to return to Liverpool.

The medical gentleman who attended and recommended him to take the baths strongly advises him to continue a little longer ; but he states that it is impossible for him to comply with the request for the present. He says, that should he not continue to progress as he has done of late, he would in a short

time arrange to come again. As he has not been back, I presume that I have a right to conclude he is entirely restored.

#### RATIONALE.

In the foregoing case, the patient came to me under the impression that he was labouring under rheumatic affection resulting from damp weather and exposure to cold, and he was treated for a certain disease with cubeba and copaiba: then how could it be that so much mercury was extracted from him, and that he progressively got better in proportion to the extraction of this deleterious metal?

It has been incontestably proved by Raspail, that unless white or red swelling of the knee should be produced by incubation of larva, it was in all other circumstances the result of either mercury or arsenic. Here we find a patient, otherwise in good health, who was labouring under stiffness and swelling of the knees ever since he had followed the treatment he mentioned. He had since been under several medical gentlemen, who had not been able to restore him by giving him medicines; he was sent to Malta for a change of air, without deriving any benefit from his journey. It is evident that he did not want either medicines or change of air, as it has not been of any benefit to him. On the other hand, we merely withdraw from the body mercury, calomel, iodine, iodide of potassium, arsenic, and iron, and the patient gets better, and almost restored before he discontinues the treatment, and very likely subsequently cured, as he has not returned.

These are facts, and very important ones too, as they prove evidently, that the use of mineral drugs, instead of curing such affections as the present one, is the cause of them.

In ordinary practice, mercury and calomel are employed internally for inflammation of any kind, iodide of potassium for the removal of mercury, iodine as a dissolvent in tumours, arsenic in diseases of the skin, iron as a tonic. All those sub-

stances were in the system, for they have been removed from it. If they possessed the virtues attributed to them, the patient would have been cured; instead of which, he progressively grew worse!—then they must have been injurious. When they are taken out, the patient got well! No clearer elucidation can prove what I have advanced in my introduction.

Several eminent medical gentlemen have written, "Take from our practice bleeding, mercury, opium, and iodine, those great weapons of the healing art, and there is nothing to be done." I say, leave alone your dangerous and destructive weapons, and treat your patients by means in accordance with the dictates of nature and the physiological laws of the organism, and you will save sufferings and the lives of your patients.

#### CASE XVII.—SEPTEMBER 24, 1859.

##### *Mercurial Constitutional Affection and Abscess on the Face.*

CAPT. N., aged twenty-four, single, came from India on leave of absence to recover his health.

A strong, fine man; lymphatic temperament.

This gentleman, while in India, had a fall from his horse; the result was concussion of the brain, for which he was treated with mercury. Salivated very severely at Cawnpore in 1858. He was again salivated in April 1859, which caused a great disturbance in the whole system, producing neuralgia, rheumatism, and constitutional debility; had lost the senses of smell, taste, and appetite.

For a long time, when taking his food, he experienced as if he had copper in his mouth; these symptoms have now slightly subsided.

Bowels are very regular; urine varies from a light hue to a dark colour, and is sometimes thick; perspiration free, particularly at night.

On taking his first bath, he felt very comfortable, and in a few minutes the cutaneous elimination appeared over all the surface of the body; confused deposits.

September 25.—States he is glad to come to the bath, as he enjoyed it yesterday.

Elimination moderate; deposits, an enormous quantity of calomel and antimony, iodine, iron, and a little arsenic.

September 26.—Came to-day with the face muffled up, the left cheek swollen and very painful, arising from a carious tooth; says that otherwise he feels better.

September 29.—The tumour is very painful, and disposed to come to a head; advised him to turn the head so as to immerse it in the water. Appetite is rather better; has slept well. Cutaneous elimination profuse; deposits, a few patches of calomel, iodide of potassium, antimony, arsenic, and urate of soda.

September 28.—The swelling of the cheek has burst; feels much more comfortable and better on leaving the bath.

September 29.—The swelling of the face has reached as far as under the jaw, is very tense and painful; the discharge has been very scanty. Advised him to immerse it in the water; he was afraid to do so; I persuaded him to try. The tumour had scarcely been in the water, when a stream of pus ran out abundantly in the liquid, forming a white streak of about eighteen inches long before mingling with the water. Deposits of mercury (quicksilver) were completely sprinkled over the whole of the bottom of the bath in innumerable spots; there was also a great quantity of patches of calomel, with antimony and urate of soda.

October 1.—Feels a great deal better; there is a gradual improvement in all the symptoms, and a cessation of the rheumatic pains.

October 3.—Much the same; deposits, a few spots of mercury, calomel, arsenic, and antimony.

October 4.—The senses of smell and taste reappearing; the food does not leave the coppery sensation as it did before; appetite better; digestion is improved. There is in the bath a great quantity of thick deposits of mercury, sufficiently so to enable us to collect several small globules of quicksilver. The tumour of the face is very much reduced, and causes no pain.

October 5.—Going on well; the cutaneous elimination is still great, and the deposits abundant.

October 7.—The face is healed; all pains have disappeared; the patient feels well and strong. There are still some deposits of mercury, calomel, antimony, and iodine; but for some days past Captain N. is very anxious to get well enough to join some friends in the country on a shooting excursion, and thinks he is now well enough to gratify his desire. He asks me to let him go for a week only, promising that he will come back and take another course of baths, in order to eradicate entirely what may still remain in the system; but I have not seen him since. I learned from his sister, about three months since, that he was still in the country enjoying himself, in perfect health and spirits.

#### RATIONALE.

Every case, resulting from the same cause, presents different characters, depending first on the constitution of the patient, his strength, and adventitious circumstances.

It is generally considered that salivation is a good prognostic, signifying that when a determination of mercury to the mouth takes place, it produces a more beneficial result. This opinion is justified in this case; for, although different in appearance, the phenomenon is the same: instead of the salivary glands being only stimulated, they become inflamed, turned to suppuration, and mercury is carried off with the discharge of purulent matter, thereby contributing to the astonishing rapidity of the cure. It is to be remarked that before taking the bath, the patient was subject to profuse and nocturnal perspiration; thus

the skin was in proper condition for leaving a free passage to the elimination, which was profuse from the beginning, and passed off so freely through the pores of the skin, that except the abscess on the face, the patient had not had any rash, nor even a single pimple on the body. The determination of the mercury was towards the head, as is proved from the commencement, by the salivation the patient had been subjected to ; and this explains the formation of the enormous abscess, through which the exudation of mercury took place.

This case, compared with others we have related, is almost an exception to the general rule, and serves to corroborate what Dr Forbes states in his work—viz., that interstitial deposits in the blood, or living tissues, differ physically, chemically, and pathologically. In my method, as it may be noticed in the various reports of cases, the distinction related by Dr Forbes is of little importance, the ultimate result always being the same—viz., the removal of any substance foreign to the organism : it is more or less difficult, and may require more or less time, but eventually the work is accomplished.

I must confess, however, that it sometimes places me in an embarrassing situation, when patients ask me how many baths would be requisite in their case ? They think I ought to know ! What I positively know, as I have explained in my introduction is, that there is extraneous matter in the organism whenever it is diseased ; that I can remove those matters : but what I cannot judge of is, what those matters are, and how they are located in this intricate, wonderful human fabric, into which the eye cannot penetrate ; but as electricity is a general solvent for morbid matters, I am sure to extract them altogether ; but if some are more difficult to be decomposed than others, or if they be surrounded by tissues which are more or less permeable than others, it is impossible to prognosticate correctly how long may be required for the performance of the work.



## CASE XVIII.—JANUARY 20, 1859.

*Secondary Symptoms.*

MR. T., aged thirty-two, single, nervous temperament ; comes from the country ; was unfortunate enough to get the infection at the age of sixteen, and to have six or seven *recidives* of the affection, the last one being aggravated by more severe symptoms. Was treated with mercurials internally and externally. States he had never previously been attacked with any acute disease. Now complains of great pain and weakness in all the articulations ; no appetite ; obstinate constipation ; micturition difficult, high-coloured, at times yellowish or reddish, depositing a white sediment when cold. Nocturnal perspirations, and very profuse on the slightest exertion ; sleeps generally pretty well, but is often subject to pains in the back on awaking in the morning. He is very nervous, and has a great apprehension to take the baths : he is afraid of the temperature of the bath, which from  $98^{\circ}$  less than the heat of the blood is reduced to  $84^{\circ}$ , in order to comply with his wishes, and to quiet his mind. A short time after he had been in the bath, he got more composed and less nervous. He states that he feels comfortable. Cutaneous elimination moderate ; deposits of calomel, iodine, iron, and lead.

January 22.—Has felt better after taking his bath yesterday ; has got a little appetite, and relished his dinner, as well as his breakfast this morning. Walked more easily in coming to the bath.

He feels the electricity much stronger than yesterday ; it producing a pricking sensation in the hands and round the neck. The cutaneous elimination is increasing.

January 24.—About the same. While in the bath, a slight rash appeared, particularly about the testes.

January 25.—Has passed a very comfortable night ; awoke

with a good appetite ; and after his breakfast, had a natural stool, as also last evening.

It is a remarkable feature of the action of the bath on the bowels, that it often produces natural evacuations without the aid of purgatives, by only giving tone to the digestive organs, and stimulating the peristaltic action of the intestines. The patient states that previous to taking the bath, he generally was subject to feel a pain after each stool. He says he feels comfortable in his bath: he has noticed that he felt stronger each time after he had taken it, from the beginning.

The cutaneous elimination is now very free: Deposits, calomel, iron, iodine, lead, with large spots of mercury (quick-silver).

January 27.—Going on very favourably. The eruption increasing; extending from the neck to the chest and arms, proving rather irritable over the testes.

January 28.—The rash is enlarging, and becomes rather irritable, producing much pain in the pubic region, while in the bath. Cutaneous elimination more abundant: Deposits of lead, arsenic, and many spots of mercury.

January 30.—The irritation on the testes is now very intense, having progressively increased since its first appearance: I think it necessary to modify the bath by the addition of bran in the water, and to apply oatmeal poultices on the part affected before entering the bath.

The crisis is now approaching; a great eruption coming on all over the body; cutaneous elimination very abundant, as well as the deposits.

July 4.—The patient has omitted three days, being afraid of the pain. I deem it requisite to modify the bath by reducing the powers of the electric current, and diminishing the quantity of the acid, adding, as before, some bran in the bath: he feels, by these means, more easy than he expected.

Mr T. informs me that, decidedly, his general health is better in every respect : his nervousness is considerably diminished ; he feels stronger every day.

Cutaneous elimination only moderate ; deposits, calomel, iron, lead, antimony.

July 5.—Pain in the part again becoming very troublesome ; same preparation in the bath ; elimination and deposits similar to yesterday.

July 6.—The pain and inflammation of the genitals is so great, that although all the previous modifications were again adopted, he could not remain more than forty minutes in the bath. The opacity of the water, produced by the bran, prevents distinguishing the elimination and the character of the various deposits.

It is to be remarked, that in cases where mercurial ointment has been used in frictions, as it is usually done for the removal of the *acarus pudicus*, the skin of the part is so much affected by the extraction of mercury, that it generally proves more painful than in any other part.

July 9.—Omitted the bath for two days ; during which time the pain in the testes has much subsided ; the shooting has entirely ceased ; he only complains of a slight pain in one leg ; otherwise he feels better on the whole ; he can now bear the change of temperature, and gets into the bath without inconvenience at 98° of heat. The cutaneous elimination is now very temperate ; deposits of calomel, iodine, arsenic, and iron are scarcely discernible.

Mr T. should have continued the treatment a little longer ; but he is compelled to return to the country, and leaves accordingly, expressing warmly his gratification respecting the efficacy of the treatment. He feels able to attend to his business, and trusts, with reason, that with proper care he will be restored to perfect health.

## RATIONALE.

This case presents one of the variety of secondary symptoms, and does not require any comment, as we have already illustrated it. We have only to add, that had not the patient called in good time, he was in danger of never recovering, as he could not be cured by the taking of medicine internally.

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## CASE XIX.—OCTOBER 6, 1859.

*Case of Secondary Symptoms.*

MR N., aged twenty-four, single, sanguine temperament, middling stature, but strongly built, and of a robust constitution ; countenance very anxious ; is a musician in a military band of Her Majesty's Foot Guards.

Contracted a disease for which mercury was largely employed, both internally and externally, in the shape of friction, and was salivated twice ; after which, an eruption appeared all over the body, turning in some parts into ulcerated pustules ; the throat became ulcerated, as also the tongue and gums, at different times.

When he came to consult me, he was labouring under what are called secondary symptoms : the face, and particularly the forehead, was covered with large coppery blotches ; the commissures of the mouth were also affected, causing him great pain and discomfort, his line being to play on wind instruments.

October 6.—Took his first bath ; found it comfortable. (Patients generally have a certain apprehension in taking the first bath : they always expect some shock or painful sensation, which they do not meet with ; and as they are lying on a soft stretcher, whilst the head is supported on a band to isolate

it from the copper, they express their surprise by the exclamation, "How very comfortable!" Others say, "It is a real luxury!")

Cutaneous elimination ; slight deposits, confused ; large spots of calomel on each side, near the surface of the water.

December 7.—About the same.

December 8.—Has felt lighter after taking his bath yesterday afternoon.

To-day the cutaneous elimination is moderate ; about the same deposits as before.

December 10.—The mouth and tongue are very sore, and the teeth are getting loose. He is much afraid of their falling out ; which would be a very serious thing, on account of his profession, he being a musician.

Cutaneous elimination increasing ; whilst the deposits, composed of mercury, iron, and iodine, are considerable.

December 11.—About the same.

December 12.—Feels better ; the blotches on the forehead are disappearing ; tongue not so foul.

December 15.—The mouth again looks rather inflamed, also the tongue and gums ; an eruption coming out on the legs and body. Elimination and deposits as before. Prescribed to immerse the back of the head in the bath, and to let the water penetrate within the mouth ; also anti-mercurial gargle and tooth-powder.

December 19.—The spots on the body are enlarging, with a tendency to form into boils in two places ; in other respects he feels better in health. The same deposits continue.

October 21.—About the same.

October 22.—A slight improvement in the mouth, but ulcerations over the body increasing.

December 24.—Improving ; the cutaneous elimination more profuse. Deposits as before.

December 25.—Feels he is improving ; the cutaneous

elimination so abundant, that it stands on and covers the body like hoar-frost.

December 26.—Feels a slight pain and stiffness in the knees, such as he has had before ; has a tendency to the formation of a node on the tibia. On coming out of the bath, frictional electricity was applied to the knee, and gave immediate relief.

December 27.—Feels very well this morning ; slept soundly, and awoke much refreshed. Local application continued.

December 28.—States that the local application of yesterday not only relieved the pain and strengthened the limb, but that altogether he feels much improved.

December 29.—Has noticed a gradual improvement in the whole system : the mouth, however, is occasionally sore and inflamed. Order to continue the gargle, which he has neglected in consequence of his occupation.

December 31.—Is most anxious about his teeth ; fancies the gums are retracting, and that there is a corrosion of the enamel at the junction of the teeth and gums. I was obliged to explain to him that it was merely the exudation which has taken place from the dental mucous membrane, such effect being produced by the bath ; that this secretion takes place between the gums and the tartrate of lime accumulated near the roots of the teeth, and that it would be advisable to have it removed by a dentist, or else the gums could not get in a healthy condition : promised to do so, although he is afraid of the operation.

Now a large boil has broken out on the seat, and is discharging a great quantity of pus and bloody matter ; some others are forming in different parts, more or less advanced, and cause him pain and great anxiety. I explained to him that it was a prognostic of a favourable crisis.

November 1.—Doing well.

November 2.—The boil is discharging freely ; proves rather painful while in the bath ; prescribed appropriate poultices.

November 3.—Other boils are now discharging coagulated matter and pain.

November 4.—General health improving; boils less irritable.

November 5.—Much the same.

November 7.—Progressing very favourably; the boil on the chest much reduced, but another forming in the neck.

The cutaneous elimination still profuse; deposits of mercury, calomel, arsenic, antimony, iron, and iodide of potassium, in considerable quantity.

November 8.—The local application of frictional electricity has been continued up to this day with great advantage. The knee now feels quite strong, and free from pain; he can move it with perfect ease: he considers, therefore, that the application may be discontinued. He feels better in all other respects, and has less anxiety about his mouth.

November 9.—Much the same.

November 11.—Is conscious of a gradual improvement; mouth more easy; teeth more firmly set in the gums; the boil on the neck is very painful, from the chafing of his military collar. As, in consequence of his military duties, poultices cannot be applied, prescribe ointment on lint, fixed with an adhesive plaster.

November 12.—Going on well.

November 14.—Boil on the neck easier.

November 15.—About the same.

November 16.—Feels, according to his expression, fresher, and much more easy; complexion much clearer and natural.

November 17.—Gums less spongy; teeth firmer; mouth more comfortable; the boil on the neck nearly gone.

November 18.—Much the same.

November 22.—Feels so much recovered, that he thinks he needs not take the baths daily any longer, and that he confidently believes he will be cured by taking them only occasionally. I, however, pressed him not to discontinue at once,

but to leave them gradually ; as I knew, by experience, that as long as the colouration of the bath and the intensity of the deposits it contains have not begun to diminish, there is danger that the matter thrown towards the surface be reperculated internally. On these observations of mine, he made up his mind at once to follow my advice, and accordingly came the day after.

November 25.—Continues to progress.

December 6.—Has been improving daily since the last bath : the mouth and gums are healthier, and afford perfect ease ; feels better in every respect.

December 9.—Much the same.

December 11.—Continues to improve gradually ; the boil on the neck is very irritated, from the chafing of the collar. To repeat the camphorated dressing.

December 12.—Going on well.

December 14.—Boil on the neck easier ; states that he feels altogether improved, and getting better every day.

It should be observed, that during all the treatment, the cutaneous elimination has been very regular and good, and has not been subject to those phases of intermittence that we have had the opportunity of observing now and then.

December 16.—Says he feels a kind of freshness and comfort about him ; his complexion is much clearer and natural.

December 17.—Continues the same ; the boil is nearly gone.

December 18 and 20.—Much the same.

December 21.—After his bath to-day, the patient stated that he supposed he was quite right, and entirely restored, as he felt comfortable ; has no pain, and can attend to his duties without inconvenience ; but that in case he should find, as he expressed it, something still lurking in the system, he would come again to take a few baths.

January 4.—The patient called to take a bath ; he feels that he would like to do so, as it had always made him comfortable.

January 8.—He came once more for his last bath.



He says that he feels quite a different man ; that he only regrets that he did not take the Electro-Chemical Bath two years before, when most likely the evil would have been more readily subdued ; that it would have saved him great suffering, anxiety, and much money.

#### RATIONALE.

This case is characteristic of the affection designated as *Secondary Symptoms*; an expression which logic and philosophy proves to be nonsense, and I wish most emphatically to prove it so.

If mercury cures certain diseases, they cannot evidently, when removed, present any subsequent symptoms. However, it commonly happens that when a patient has followed a course of mercury, and thinks he is restored, that a short time after he is cured of the original affection, some symptoms of the same character as the first, but much more severe, make their appearance : what conclusion can we logically come to ? If they are still syphilitic symptoms, then mercury does not cure venereal diseases ! If the disease be really removed, no symptoms can exist, as they are but the signs of all kinds of diseases. Then what can secondary symptoms be, but those resulting from the remedy—viz., mercurial affection ? I wish this to be well understood, because I have seen a great many mercurial affections which have by mistake been taken for syphilitic ones, and have again been treated with additional doses of mercury, thereby making the case worse and less tractable to rational means. The present case is a proof of what I advance. The patient has not taken any medicine while under my treatment, and all symptoms disappeared one after the other, till he was completely and radically cured by taking the baths. But what have they done ? We have demonstrated it under the very eyes of the patient. They have removed the mercury and other substances of a similar character, and by removing the cause we

have annihilated the disease. Should any one still contend that mercury itself was not the cause of the affection, then they would be obliged to own that the bath itself has the virtue of curing syphilitic affection much more readily and comfortably than mercury itself, and in such case it would still be the more valuable. I am aware that many practitioners are likely to contend against my doctrine, but facts are stubborn. Any one has a right to advocate what he pleases. The remarks I bring forward are not for the object of establishing a polemic on the subject, although I am ready to support it; but if I dissent on the subject, it is merely to call the attention of the parties most interested in the matter—viz, the public—in the shape of an appeal to common sense.

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#### CASE XX.—JANUARY 5, 1859.

##### *Shaking Palsy, produced by the Absorption of Mercury.*

MR B., aged thirty, married, has a family; sanguine temperament; has lived a regular and temperate life.

Has been employed as silverer in a looking-glass manufactory; complains of paralysis, with a shaking of all the limbs, which prevents him from walking, and disables him for work.

After entering the bath, a great elimination of effetes took place, and the water became covered with epidermic scales.

He states that he feels all over him the powerful effects of electricity. When he leaves the bath, a remarkable quantity of animal effetes cover the copper so thickly that no particular deposit can be distinguished, owing to the bad condition of the skin.

January 6.—Fancies that his legs feel a trifle stronger. The cutaneous elimination becomes conspicuous. The bottom of the bath is much discoloured; found a few small spots of mercury. States that he feels refreshed and lighter.

January 7.—Thinks he is somewhat better ; bath still remarkably discoloured.

January 8.—The trembling of the limbs is less ; he feels stronger, and can move freely in the bath ; he feels also less nervous and more steady. Many spots of mercury deposited on the copper, also deep stains of tin.

January 10.—Feels he is improving ; is better able to control the trembling of his limbs, and to walk with more ease and comfort.

He says the bath puts him in better spirits, and renders him cheerful ; appetite good ; enjoys now a beefsteak before coming to his bath. Elimination as yesterday ; deposits of mercury in greater quantity ; is able to get out of his bath almost without assistance, and stands firmer on his legs.

January 11.—Is going on favourably ; can stand better ; limbs less shaky ; feels his strength rapidly returning. Cutaneous elimination moderate ; deposits, mercury, iron, iodine, tin, &c.

January 12.—Says he is going on well ; was able this morning to bring his child down stairs ; can now walk well enough to come from Whitechapel to take his bath.

January 13.—Feels about the same.

January 14.—To-day feels a stiffness and pain in the throat, with difficulty in swallowing, the result of a slight cold he got yesterday ; those symptoms disappeared while in the bath : in other respects feels very well.

January 15.—Feels well and strong enough to resume his work, and discontinues taking the bath to return to his employment.

## CASE XXI.—JANUARY 17, 1859.

*Derangement of the Vital Functions, caused by the Retention in the System of Extraneous Substances, for want of bodily exercise and pure air.*

MR B., aged forty-five, married ; phlegmatic temperament ; has led a regular life. Diet plain and substantial ; drinks usually a great deal of tea twice a day, and indulges but rarely in a little porter or ale. Follows a sedentary occupation ; is accustomed to warm rooms, and in the habit of working late at night.

He complains of indigestion, disordered liver, constipation, derangement of the stomach and functions of the kidneys.

Urine is sometimes pretty free, and of a pale colour ; at others, of a deep colour, leaving deposits in the vessel ;—the patient at times experiencing pains in the region of the kidneys. Mouth at times coated in the morning.

Has for a long period seldom taken medicine, and then homœopathically.

On taking his first bath, the cutaneous elimination was only moderate : but before leaving it, the body was covered with fatty effetes, and after getting out, minute spots of mercury were found on the copper.

January 18.—Felt rather dull and low-spirited after taking the bath yesterday ; a rash appeared on the chest and arms, which was rather irritable. Had a loose motion of globulated matter ; took some French plums as a mild aperient. No pain in the region of the liver or kidneys ; thinks the bath produces a slight feeling of lassitude. The cutaneous elimination is very free, and the deposits are remarkably varied—viz, spots of mercury in the centre, and patches of animal matter ; also urate of soda, antimony, iodide of potassium, and a few patches of lead.

January 19.—Felt rather better yesterday ; appetite about the same ; bowels rather confined ; quite free from pain anywhere.

January 20.—Still better ; lighter and more cheerful ; awoke with a slight head-ache this morning. Cutaneous elimination very abundant, and a very large deposit of mercury.

January 21.—Did not feel quite so well yesterday after his bath ; pain in the region of the stomach, about the diaphragm ; bowels rather more confined the last day or two ; water not so pale as before, and motion rather darker. To apply local electricity in the bath to the stomach and bladder.

January 22.—Feels much improved to-day ; no pain in the digestive organs ; the bowels comfortable ; stools twice a day.

January 23.—Very much better ; does not think there is much the matter with him now, and discontinues taking the baths, considering that he is sufficiently improved to do without them for the present.

#### RATIONALE.

This apparently simple case is of very common occurrence, and for this reason worthy the attention of the reader on various points.

We see a gentleman of very temperate habits, who has for a long time taken but a few homœopathic medicines, and who at the same time is affected with a derangement of the liver, the stomach, the bowels, and the kidneys, the principal organs of digestion, secretion, and evacuation. He is satisfied that his regimen is such as not to create disease, and that the few medicines he has taken for some time past are not of a nature to be injurious. Where can we find the primary cause of his affection ? It is unknown to him ; but the Electro-Chemical Bath reveals it at once—viz, the presence of mercury, iodide of potassium, lead, &c. ; moreover, of urinary deposits, resulting

from derangement of the kidneys, induced by the substances above named ; but he does not mention them, under the impression that he has taken them so long a time previous to his present affections, that they have nothing to do with it.

I daily meet with patients labouring under the same mistake, and I call the serious attention of my readers to this important fact.

The patient has not taken a single grain of medicine while under my treatment : he is not, therefore, cured by medicinal agency. His restoration depends simply on the removal of medicines he had previously taken. Being so, it is evident that the cause of his present disease resided in the retention of the drugs he had taken formerly! Had those substances been endowed with the dynamical power that all medical bodies should possess, according to my opinion—viz, to be transformed into the elements of the blood, and through that fluid to be assimilated with the living tissues,—we should not find them, after the lapse of many years, in the system. Thus, I contend, therefore, that they are injurious on all occasions, as being contrary to the laws of Nature, and for this reason should be rejected from the practice of medicine. The patient has also neglected and violated Natural Law by a too sedentary life, confinement in a warm room, breathing a contaminated atmosphere, and want of bodily exercise and pure air, while his system was overloaded with extraneous, inert, or indigestible substances.

## CASE XXII.—SEPTEMBER.

*Case of Progressive Cachexia, or Loss of Functional Power, resulting from Excesses.*

MR S., baker, aged thirty, single; is very thin and tall; stoops considerably; pale yellow complexion, with sinking in of the cheeks; the nose pinched; the region of the mouth contracted; the eyes dull and sunken; countenance depressed. Has been labouring for many years under general debility, brought on by excessive venery, which during the last seven or eight years has been progressively increasing.

The weakness is particularly felt along the spine, from which it shoots downward to the hips and feet, occasioning, as he says, a sensation like burning.

He is at times exceedingly nervous and irritable, despondent and low-spirited. The appetite is good; the bowels act tolerably by using occasionally aperient medicine. He is subject to profuse sweats, the usual symptoms of weakness.

Whilst taking his first bath, he felt very comfortable; experienced a soothing sensation all over the system. The cutaneous elimination very slight, proving a want of vitality; discoloration of the bath is moderate; the deposits consist of iron, antimony, lead, iodine, and small spots of calomel. On leaving, he is more cheerful, and has hopes in the efficacy of my mode of treatment.

Mr S. says that he is very sorry that he cannot attend the bath regularly, on account of his employment, but that he will come as often as possible.

September 27.—Came this day, five days after his first bath; has slept better ever since; is less despondent. The cutaneous elimination is better this time; deposits, numerous spots of mercury, iodine, and iron.

October 3.—Has omitted six days: feels a little better

generally ; he thinks that the feeling of weakness is a trifle less. Elimination and deposits about similar to the last bath.

October 4.—Decidedly improving ; is able to attend to his work with less fatigue.

October 7.—Has omitted two days.

October 10.—Considerably better ; feels invigorated in the genital organs.

October 12.—Is improving very fast ; feels quite comfortable in the bath. Cutaneous elimination very good ; deposits of arsenic, antimony, and calomel.

October 14.—Has missed a day : feels very much better ; countenance much improved ; is making flesh ; more talkative and cheerful ; genitals gaining strength.

October 18.—Has omitted three days, but is still going on very favourably.

October 21.—Is improving.

November 3.—Continuous improvement in every way ; his general health, vigour, appearance, are all gaining daily.

November 11.—Has not come for eight days, in consequence of feeling so well that he thinks he does not require to continue taking the bath any longer : he, therefore, takes his last bath and discontinues the treatment, stating that should he feel a relapse he would come to take a few more baths.

He called some time afterwards, to state that he was quite well. While following the treatment, the patient did not take any kind of medicine, but was very attentive in following the regimen I had prescribed.

#### RATIONALE.

This case is a very common one, and particularly characteristic in its symptoms of the unavoidable consequences resulting from certain excesses.

There are different kinds of cachexia, presenting various forms, but in all cases the principal object is to avoid the cause,



whatever it may be, and sometimes the effects will subside without treatment: it is what this patient has scrupulously observed—he has also followed a strengthening regimen; but abstinence from bad habits and a proper regimen have not the power of removing from the organism such substances as do not enter into the composition of diet and food. We found in the deposits plated on the copper, iron, mercury, lead, arsenic, &c., which are all weakening medicines. I say, weakening; I shall demonstrate it to evidence in a work on Medicine I propose to publish, as soon as my time will allow: meanwhile, a single remark may strike some of my readers who are not prejudiced in the matter—viz., as long as a substance cannot make blood or living tissue, it must be weakening, since strength resides in flesh.

Now for the *modus operandi* of the Electro-Chemical bath: what has it produced? Nothing else but the extraction of the substances alluded to above. For seven or eight years past, the patient said he had been getting worse and worse whilst taking medicines; he ceased taking any under my mode of treatment, and after only twelve baths he was entirely cured.

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#### CASE XXIII.—AUGUST 3, 1858.

##### *Functional Symptomatic Epilepsy.*

CAROLINE W., aged thirty, servant, from Mortlake; has been recommended to me by a friend of mine living in the same place.

This patient, after being subject to the complaints of childhood, was sent to school at the age of eleven, and began soon afterwards to have fainting fits, which gradually increased in intensity and frequency up to the age of fourteen, when the

catamenia came on, which were scanty and gave her a great deal of pain at each period. Since that time, she has progressively been getting worse and weaker, the fits becoming stronger every day, until they turned into attacks of epilepsy. She was then placed under the care of Dr Palmer for some time, who gave her a great variety of medicines, but without much benefit, as she continued to have the fits at intervals ; she was next put under the surgeon of St George's Hospital for five months, but received no benefit from his treatment ; she then had the advice of a physician residing in Blackfriars road, who could do her no good : so that she has been taking medicines for the last sixteen years, and trying everything and every one for relief, and not only got none, but is worse than ever, being now subject to fits several times a day.

Her appearance exhibits a dull, earthy complexion ; she has a vacant look and an idiotic expression, scarcely able to answer any question : it is from a female friend she is accompanied by, and who has known her since her childhood, that I have obtained the above information.

She is very weak and despondent, excessively nervous ; the appetite and digestion are bad, as also her sleep. She is put into her bath in a state of stupor, as if she were unconscious of it ; she has the appearance of a mere automaton ; when asked if she feels comfortable, she answers affirmatively by a motion of the head. When she left the bath, her countenance was a little more natural : the cutaneous elimination was profuse at once ; the deposits formed a confused discoloration.

August 4.—I am told by her friend that she passed the afternoon nicely, as also the morning of this day ; but soon after entering the bath, she was seized with a fit, which lasted half an hour ; not one of a violent character—she is apparently too weak and her nervous system too debilitated to exhibit an attack of that kind. The sedative water (a refrigerant lotion) is applied to the head, and an infusion of anti-spasmodic powder

given internally, in order to produce a revulsion to the stomach. This soon gave relief; but on leaving the bath, about three-quarters of an hour later, she was seized again with a very strong attack. She was then removed to one of the waiting-rooms, when she had a succession of fainting fits: a hot-water bottle was applied to the feet, as well as local electricity, when she recovered and walked home.

Prescribed an infusion of senna leaves in the juice of boiled prunes, with bicarbonate of soda, as a laxative draught.

It will be perceived that my object was to relieve the head by causing a revulsion or determination to the stomach, which produced fainting instead of epileptic fits, and that the stomach was relieved by causing a determination to the lower extremities.

August 5.—Appears more lively; she has had a good night's rest; bowels open.

Applied sedative water on the head while taking the bath, which prevented any fit to appear. Very good cutaneous elimination, with considerable deposits of metaloids.

August 6.—Last night, on going to bed, was suddenly seized with a strong fit, which lasted more than an hour, after which she recovered rapidly. To-day she appears much better. Profuse cutaneous elimination; mixed deposits, in which iron predominates. To take, three times a day, tar-water, with two grains of camphor in substance, and repeat the infusion same as before. Cutaneous elimination free; deposits of calomel and iron, with a confused but slight discoloration on the copper.

August 7.—Her head feels much better; has had no fit for the past two days; has slept well; bowels open. Cutaneous elimination moderate; deposits of calomel and iron. Recommended her to keep a piece of pomegranate rind in the mouth.

August 9.—Had a very strong fit last evening, which lasted only half an hour: on the whole, she feels better; appetite and

digestion improved ; slept much more comfortably ; countenance more natural and healthy.

August 11.—Feels very comfortable in the bath, and is altogether more cheerful and happy ; she is now conscious of progressing.

August 12.—Had no fit for the last two days. She felt last evening some precursory symptoms of an attack, but it was warded off by immediately applying sedative water on the head. Profuse cutaneous elimination, with a considerable deposit of calomel and iron.

August 13.—On entering the bath, she was seized with spasmodic contraction of the throat, which was almost immediately dissipated by the application of sedative water. Cutaneous elimination very free, and very great deposits of animal matters and calomel.

August 14.—Has had no actual fit for the past week ; slight symptoms have appeared twice, but were subdued by timely remedies. She is now rapidly improving, getting stronger and more cheerful ; eats well, and digests well ; bowels regular ; sleeps comfortably. The cutaneous elimination is on the decrease ; the deposits less intense.

August 16.—Feels altogether better ; her countenance is much improved and natural ; she talks willingly, and can express the benefit she has received : she has a smile now and then when asked what she feels ; she says, nothing but comfortable : she enjoys her bath. Cutaneous elimination free ; deposits of calomel and iron, with a confused but slight discoloration on the copper.

August 17.—She has had no fits, nor any tendency to them. She feels no pain in any part ; her head is free and light ; all functions are regular ; she is sensibly gaining strength and confidence, having no apprehension for the time to come ; she walks and moves freely and deliberately ; she takes her bath in very good spirits. Elimination very slight ; same deposit as

yesterday, but in very reduced quantity. She feels so well on leaving the bath, that she thinks she does not require any more, and makes up her mind to start the next morning for Mortlake, her abode, promising to come back in case of relapse. I have not since heard of her ; and as she was amongst the patients treated gratuitously, I am entitled to believe she has continued well.

#### RATIONALE.

The above case, I venture to say, is one bearing on a very important question. That attacks of epilepsy are brought on by a peculiar and sudden derangement of the brain and nervous system is undeniable ; but the pathology of the disease is still unknown, and post-mortem examination has not as yet, as far as I am aware, thrown any light on this subject. Some authors have advanced that it is a disease of the substance of the brain ; others consider it as a symptomatic affection resulting from some organic visceral alterations, such as the womb in women, or the stomach or bowels in both sexes. I am disposed to accept the latter opinion, having in the course of my practice found the seat of neuralgia of the face residing in the kidneys, and met with a case of mental hallucination resulting from a disorder in the digestive organs, caused by the accumulation of metallic substances : both cases will be found among my extracts.

What has not been tried without success for these formidable affections ? I recollect that when at the Hôpital St Louis, more than forty years ago, horrible experiments were then tried. When the patient was in a paroxysm, the cranium was trepanned, and morphia applied on the dura mater. This entirely failed ; then narcotic poison was administered internally in high doses to those patients who were subject to precursory symptoms, watching the first indication of poisoning, in order to administer immediately the antidote ; but it

happened with some, that when the external symptoms appeared, the internal ravages were too great to permit recovery.

With regard to electricity in the shape of the Electro-Chemical Bath, when the diagnosis cannot be satisfactorily established, it affords the advantage, firstly, of involving in its action the whole of the organism, and consequently the part where the seat of the disease is located ; secondly, of being without danger, and, as proved in the above case, perfectly effectual—the result depending, as in all cases, on the removal of extraneous substances. In previous treatments followed by the patient during sixteen years, she has all the time taken internal medicines, while under my treatment she took only a little senna, camphor, and tar-water, each of these being innocuous and organic substances ; but she threw out a quantity of calomel and iron ;—the cure depending, therefore, on the extraction of inorganic matters. Is not this fact worthy the attention of the Medical Profession ? I leave the reader to consider.

I call this case symptomatic epilepsy ; because I find, in the first instance that she has had eruptive fevers—a proof that there was morbid matter in the system, still no cerebral derangement.

She is sent to school at the age of eleven. The change of food, the want of due care, bring on fainting fits, arising from the derangement of the viscera, particularly of the stomach. The catamenial discharge comes on at fourteen ; it is scanty, difficult, and painful. Here, according to the doctrine of the celebrated Bichat—viz., where there is pain there is a diseased action—we have to conclude that the pelvic organs were disordered ; but as the womb is acknowledged to be a centre sympathising on all occasions with the stomach and the brain, we may trace the reflex action involving all the vital functions, and thus account for the epileptic fits which I have denomi-

nated functional. Next we find that medicinal treatment causes her to get worse; thus medicines were not available in such a case. She is cured by electricity; then electricity was undoubtedly the proper remedy.

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#### CASE XXIV.

*Extraction of Mercury after it had been retained for Forty-two Years in the Body without the individual being aware of it.*

##### MY OWN CASE.

I THINK it would be desirable that every medical man should have the opportunity of trying on himself the remedies he uses for his patients: he would then very likely draw different conclusions to those he generally arrives at.

At the commencement of my establishment, being desirous of ascertaining the electric power, the temperature, and the length of time a patient could remain in the bath without inconvenience, I resolved to try it on myself. I was then enjoying perfect health, without the remotest idea that I could have anything injurious lurking in the system. I got into a bath at 102 degrees of temperature, supplied with two new batteries of great power: I remained nearly two hours in the bath, which was elevated to the temperature of 105 degrees.

Whilst in the bath, I did not feel any particular sensation, excepting a general buoyancy in the system; but when water was poured on my hand,—a thing which is practised from time to time, in order to keep moist the conductor held out of the water,—it became numbed, and by continuing to pour the water for some time I experienced a sensation of crushing, as if the hand had been squeezed in a vice. This I had repeated several times; but, except the pain, which was pretty acute, it did not produce any subsequent evil consequences on the system, other

than to cause a very thick deposit on the copper, which, when I left it, appeared perfectly black. On close examination, I discovered on the sides of the copper, near the surface of the water-line, a band of mercury (pure quicksilver) all round the tub, about a quarter of an inch in diameter. I need not say that I was much surprised at such a discovery, as I had not taken any medicine for a great many years, except a few aperients or cooling ptisans, such as lemonade, barley-water, and the like. I could scarcely believe my eyes; but, as it came from my body it was evident that it was previously within. Then, by a careful retrospection, I recollected that I had taken some of that pernicious medicine forty-two years since, and then in very small quantities, as I was not salivated, nor my mouth in the least affected in appearance: I say, in appearance, because at that time I did not feel any ill effects from it. Still, I had not escaped the deleterious effect of this dangerous poison.

When young, I was possessed of a very fine and strong set of teeth, and then flattered myself that they would last in good condition for many a long year; but such was not the case, as many became decayed without my being able in any way to account for the cause.

In the present conjuncture the secret has become unveiled, and the reason why sadly explained:—We find in England, amongst young people of both sexes, particularly ladies, and even children, perhaps twenty-five per cent., if not more, whose teeth are decayed and the mouth spoiled at the dawn of life, and at the period when the teeth should be one of the greatest ornaments of the human countenance. But we should bear in mind that this disfigurement is not alone the greatest evil: bad teeth do not allow us to masticate our food, and from want of due mastication the food is not properly prepared for digestion. Cannot this fact explain and account for the great number of dyspeptic patients we meet with in practice? This question, I think, is worth consideration. It is true that the art



of dentistry has, as a matter of necessity, come to a very great perfection : this proves the intelligent capacity of man ; but in this instance, as in all others, I think the work of Nature is still preferable.

It is argued by a great many medical men, that mercury is thrown out of the system by the very power of the organism. I think that I am a proof of the contrary, as I was endowed with a very strong constitution and great muscular power, which has been pretty well exercised during all my life, being able when young to walk seventy miles in one day, and able still, at the age of sixty-two years, to bear a greater amount of physical exertion than many men much younger than myself. Still, that kind of constitution and muscular power, called by my friends Herculean, have not thrown out of my system the mercury which, according to my knowledge, has been lurking there during the last forty-two years ! Independent of the above complaint, I have been also subject to severe lumbago and pains in the articulations, which I have a right to suppose come from the same source, as there must be a cause for them, and I cannot trace any other.

So much for the past ; but now I have to relate other facts in relation to cause and effect, bearing on my method of treatment.

I am aware that it is unbecoming for a man to entertain the public with himself ; but I trust to be excused on this matter, the recital having for its object the elucidation of some point of interest. I need scarcely state that I am of a sanguine disposition, going, as the Americans say, headlong when I have in view something to accomplish. In the numerous cases I have attended, many required only the taking the bath, when a mere general action was wanted ; but in others, such as œdema, superficial tumours, swelling of the articulations, or languidness of some particular organ, paralysis, &c., I thought that local application on the parts affected would be beneficial. As soon

as the idea came, it was immediately put into practice, without any consideration for the consequences which might result to the operator. Having no means, then, for reaching the body in the bath, I went to work with my hands—plunging the arms in the water, holding the limb with one hand, and operating with the other with the positive pole of the battery. It proved so beneficial and effectual in many cases to the patient, that I went on without thinking of the baneful effects it would naturally have for the manipulator, when it happened one day that I felt a very disagreeable itching on the left arm, between the shoulder and the elbow. I had recourse to my own treatment, as a matter of course, and took immediately a bath. On coming out of it, I found that the epidermis was removed for a space of about five inches in length, and that a rash had appeared on the denuded surface, thus discovering, rather late, that I had been inoculating myself with the disease of my patients. I could not, however, desist from what I had begun. The thought struck me that I could, as a preservative, have a pair of long gloves made of india-rubber. They were at once bespoke; but before they were made, time passed away, and I continued the application. The itching spread over the whole body, and became so intense as to deprive me of sleep: the mesenteric ganglions became engorged to such a degree that, on pressing the abdomen, I could feel them plainly. I suffered many months from my imprudent doings, having a rough towel in my bed to rub myself till the itching became subdued by the friction, and got rid of it until I found time to follow regularly my mode of treatment.

Another inconvenience from which I suffered, was in having the head so near the surface of the water, that I directly inhaled the emanations of the bath, which brought on a dyspnoea and a rather troublesome cardialgia. It was then that I invented an instrument to obviate the evil. Thus it is that we must always pay for our experience; such was the case, but I did not

regret it, because it came to corroborate my opinion, and to prove the rationality of my system : on the other hand, it led me to the research of other means, which now afford me more resources without inconvenience or danger.

#### RATIONALE.

In relating my own case, my object is to justify the proverb, Practice makes perfect. Every one will agree that the best instruction is the result of self-experience. I have demonstrated, in my Lectures on Philosophical Education, that all our knowledge is in every case the result of sensations ; that there is no language by which we can impress on the mind the difference between heat and cold : we must feel it ; and it is through my own feelings that I have been guided to the appreciation of the *modus operandi* of my mode of treatment : and as this means is the only one by which we may ascertain accurately the real property of anything, I would with pleasure give one bath as a trial to any patient who should doubt the innocuous application of that most powerful agent, Electricity.

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#### CASE XXV.

##### *Pernicious Effect of Blue Pills and Iodine.*

MADAME C., a relation of mine, was taken ill during my sojourn in Manchester, and not wishing to call me to London on purpose, took advice of a medical friend, who found that she was labouring under hepatization of the left lung, rheumatismal pain in the shoulder, cephalagia, night-sweat, and all the concomitant symptoms of such an affection. When I arrived in London, I found her in such a state of weakness and prostration that she could not go from her bed to the fireside without the assistance of two persons. She had followed a mercurial treat-

ment, viz., blue pill and black draught, every day during six weeks. The whole of the left side of the chest, anteriorly and posteriorly, had been painted with a solution of iodine repeatedly.

Madame C. recovered after a long convalescence, and during a space of two years enjoyed tolerable health ; when she again began to experience a general derangement,—bad digestion, irregular sleep, a general prostration, and great despondency.

During this period, she had occasionally taken an Electro-Chemical Bath, which relieved her for the time ; but as she was, notwithstanding, getting worse, I advised her to follow a regular course. After the second bath, small spots of mercury were deposited on the bottom of the bath. After the seventh bath, I found many deposits plated on the copper, the largest towards the middle, forming an irregular parallelogram, measuring eleven inches in length by nine, and seven at the two ends ; another at the foot of the bath, about the same size of surface, but very irregular, with numerous spots of various sizes spread all over the bath : there was also on the sides a slight tinge of iodine. After fourteen baths, she was obliged to go out of town on business : she felt tolerably well and in pretty good spirits for nearly two years, when she was again attacked with a similar derangement as the last. We had recourse to the same means. At the first bath, I found a great discharge of iodine on the side of the copper ; at the second bath, some pimples appeared on the side of the chest only where it had been painted with iodine : each day the eruption increased ; large purple patches and pustules covered the part which had been painted, the deposits on the bath becoming darker. The eruption decreased progressively, and died away entirely, when the patient appeared radically cured, and able to attend to her business with her usual energy.

During about two years more she went on tolerably well ; the indispositions she had from time to time, she attributed to an excess of fatigue, from which she was relieved by occasionally

taking a bath; when she began to lose her appetite and sleep; she became despondent, and experienced a pain in the left side under the ribs; which increased progressively, with a difficulty in breathing. She began a new course of baths, which relieved her generally; but the pain in the side did not get better, and appeared to become the seat of a local affection. I thought it requisite then to apply electricity topically over the spleen, while she was in the bath. This brought on at once a large vesicle in the shape of a blister, which burst on her getting out of the bath, when a viscous liquid came out in pretty good quantity, about a quarter of a pint: a dressing was applied with camphorated ointment on the whole surface. The next day I found that a copious watery discharge had taken place, so much so that it passed through her linen. She took her bath as usual, when I observed the formation of pustules over the denuded part, which was dressed, as the day before, with lint. The discharge increased daily, composed of serum and yellow purulent matter; the internal pain was relieved in proportion as the suppuration became more abundant; the pustules assumed a purplish colour, and for the space of three weeks the discharge continued active, when it stopped almost suddenly. Madame C. not being able to continue taking the bath regularly, and thinking it of less importance, as she felt better in every respect, she thought there was not an absolute necessity for taking the bath daily: however, a few days after, she felt a difficulty in breathing; the lower lobe of the lung was impermeable to the air. She was, for the second time, labouring under an hepatization of the lung which had been affected in the first instance. She then resumed taking the baths regularly. In the present conjuncture, electricity was again applied locally, with an instrument made on purpose. The patient was seated in the bath, with the water coming only as high as the last true ribs, and the electricity passed upward from behind the collar bones, downward through the lung. This was scarcely applied,

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when the patient breathed deeply and exclaimed, "I feel the air penetrating the lung!" This was repeated several times, when Madame C., who was very much engaged in her business, thought she was well enough to discontinue the treatment, her time being too much occupied to enable her to spare it unless it should be absolutely requisita.

#### RATIONALE.

I trust that every one will agree with me on one point—viz., that it is the duty of every honest man to contribute, by every means in his power, to the reformation of principles which are at all contrary to the well-being of his fellow-creatures. It is being impressed with this motive that I rise in arms, so to speak, to demonstrate the baneful effects of some substances employed in medicine, that we cannot either call therapeutic agents or remedy, since they destroy instead of curing. In undertaking this difficult task, I cannot repeat it too often, that my remarks are not directed against any individual; that I do not intend to assume any kind of supremacy over any of my colleagues in the medical profession: they have a decided right, by their acknowledged acquirements and their constant efforts to relieve human suffering, to the respect of the community at large; but, that they are mistaken in certain notions is certainly my humble opinion, and I think that the present case will prove it. By following from the beginning all the phases of the disease and its treatment, we found that the hepatization of the lung was followed two years after by a mercurial affection; as the patient was restored by eliminating the mercury, it is evident that this mineral had not been removed before, neither by the powers of nature nor by any other means. Two years later, the patient is again affected in her health, she does not know by what, nor what the cause is: had she happened to have consulted any medical man, he would very likely have been as wise as herself, as he would not have

suspected that it was the effect of iodine, since it is an accredited opinion that those kinds of substances are carried out of the system when they have produced their effect. In spite of this accredited belief, the fact is here to prove that it is an error, inasmuch as, after four years, iodine comes out and the patient recovers. Two years after, making six years altogether, the patient has an inflammation of the spleen, which terminates in suppuration, when iodine is again found in the pustules : how is that ? Simply because the spleen is only separated from the lung by a thin membranous muscle, the diaphragm ; and that, in painting the chest with iodine, the spleen has also absorbed a portion of this drug—most particularly so, iodine being the substance which acts more readily on the glands, since it is considered as a specific in glandular affections. It may be asked why this drug has not been removed from the spleen at the same time that it was eliminated from the lungs ? Simply because the texture of the parenchyma of the lungs is different from the spleen ; the first being permeable and light, whilst the other is more compact and dense, the substance it has absorbed adhering, in consequence, more firmly in its texture. It may also be inquired why the lung was again affected, since iodine had been already extracted from it ? Because inflammation extended itself by the continuity of the tissues ; because an organ, when it has been once diseased, is more susceptible of being affected a second time ; because, perhaps, in consequence of being so near the spleen, the iodine had not been entirely eradicated in the first instance, or because it had received from the spleen an exudation of the poisonous drug. In the above physiological and pathological examination of the case, I think I am correct, although it is not in accordance with the dogma of general practice : but as I write conscientiously with the intention of enlightening the subject, I shall be very glad to be corrected if I am mistaken. In the sequel of facts I have related, it is to be noticed that the affections of the patient began with hepatization of the

lung, which was ultimately reproduced six years after its first appearance, and after it had become complicated in the course of time by unfavourable phases—consequently more difficult to eradicate. I shall now, in conclusion, ask this simple question: If, when the patient has been weakened during many years by disease, and from the baneful effects of the first treatment she had followed, she has ultimately been cured by electric treatment, does it not appear evident that, had she begun by the mode of treatment by which she had been restored at last, her case would have been but a trifling affair, which would not have shaken her constitution, as it has been during many years by a succession of organic derangements, sufferings, and mental anxieties?

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#### CASE XXVI.—JANUARY 24, 1859.

##### *Painter's Colic, with Lead Palsy of the Right Hand.*

W. J., painter, aged thirty-three, married, has a family; he is a man of temperate habits; lives on plain food, and drinks only beer, one pint and a half a day.

Has for several years been subject to the painter's colic, resulting from the absorption of lead, which has returned periodically about Midsummer; but it is only six months since that the paralysis of the hand made its first appearance, attacking first the thumb, and successively the second and third fingers (this kind of palsy generally begins with the little finger).

He states that previous to the present illness he has never suffered from any other complaint. He now comes to take the bath at the request of his medical adviser, who had prescribed for him in previous cases of colic.

On entering the bath, the effect of electricity was very perceptible to the patient, who said he felt a very comfortable



sensation. Immediately a free cutaneous elimination appeared. On leaving the bath, it was completely covered with epidermic scales and fatty effetes ; there were large deposits of lead on the copper.

January 25.—Much the same feeling as yesterday ; the electro-magnetic electricity was locally applied to the hand.

January 26.—The cutaneous elimination has been somewhat checked, and is not so abundant ; deposits of a few spots of mercury, and a large quantity of lead.

January 27.—Feels better : appetite good ; bowels regular ; general health improved. Cutaneous elimination again very abundant, to such a degree that, when scraped off from the chest, it rises as a cloud ; deposits of large spots of mercury. After leaving the bath, the patient feels much revived. Local application to the hand repeated.

January 28.—About the same in a general point of view. The fingers begin to move under the action of local electricity ; they are getting supple and pliable ; the electric muscular action allows him now to move them in a better direction. Deposits of iron and lead.

January 29.—Is getting on : the muscles and fleshy part of the palm of the hand are so much emaciated and retracted, particularly those of the thumb, that it is difficult to produce the electric muscular action to the few muscular fibres remaining, and I am obliged to find in the common extensor muscles of the arms the means of producing a certain amount of motion.

January 30.—Progressing slowly. Cutaneous elimination still good ; deposits of lead and iron ; small spots of mercury.

January 31.—The improvement becomes greater daily : the hand acts more readily under the control of the will ; the muscles in the palm begin to be more developed ; the fingers can be straightened more easily ; the body looks healthier ; all the functions are improving. Similar elimination and deposits as previously.

July 1.—About the same.

July 2.—Doing well.

July 5.—Is progressing slowly, but steadily; has not had any drawback from the beginning; the paralysed muscles of the fingers are gaining in strength and motion; he can now grasp anything with a certain amount of power, and also extend them at pleasure; the muscles of the thumb and palm of the hand are increasing in size—also still abnormally soft. Cutaneous elimination good; deposits of lead and calomel.

July 14.—Has omitted coming to the bath the last fortnight, in consequence of a swollen toe,—a symptom which occasionally occurs whilst taking the bath, when the substances retained in the system are of a ponderous nature, and fall to the feet in proportion to their specific gravity. Repeated the last treatment, with about the same result.

July 15.—The attendance of yesterday has proved most favourable; Mr J. has been able to walk home to Mile End, and to come here this morning without fatigue. The appetite is good; the bowels regular; urine natural: he is as much surprised as delighted at such an unexpected result. The fingers are improved in proportion to the general health; he can now extend them to their full length; he only feels a little stiffness.

Feels perfectly comfortable in the bath; does not experience any kind of pain; the body is warm, and the perspiration is free.

July 20.—From the 15th to this day he has been improving daily; he now feels well, and is able to return to his business, and leaves accordingly.

#### RATIONALE.

Lead is a common cause of poisoning: see the case of Mr Seehrook, of Exeter, who was paralysed by having drunk water from a new lead cistern, and was cured by the bath. It is astonishing how this metal, so heavy, is absorbed so readily in

the system, it acting always as poison ; but is it not more astonishing still, that, knowing its deleterious effects, it is so much employed in medicine, as well internally as externally? If, when absorbed either by the skin or through the respiratory process, lead is carried in the intestine, where it disorganises the mucous membranes and causes those horrid and agonising pains which too often lead the unfortunate sufferer to an early grave,—how is it possible to throw, knowingly, in the organism such a substance? I leave the reader to appreciate and judge for himself.

The next question is, what is the medicament that has the property of removing this poison from the organism? And we shall find that there are none; and this is the reason why diseases produced by lead are but palliated by any kind of treatment, and always recur in one shape or other: it is also the reason why the Electro-Chemical Bath is so valuable in every kind of intoxication produced by mineral substances, it being the only mode of extracting them from the living tissues. Perhaps some readers will inquire why deposits of mercury and iron were found besides lead on the bath, when, according to all appearance, the patient has not had any specific disease that required the use of mercury?

In answer, I say that mercury is commonly used in paralysis, and thus the weakness it causes is generally treated by ferruginous preparations; the whole process being ultimately as if putting oil on the fire to extinguish it: whilst, with electricity, the primary cause as well as the subsequent evils are removed without leaving anything injurious in the system.

## CASE XXVII.—JULY 29, 1859.

*Case exemplifying the various Baneful Effects of Mercury, and the Perseverance and Mental Courage of the Sufferer.*

MR C., aged thirty-eight, single ; engineer and contractor. The present complaint of this patient began in 1853, in the form of acute sciatica, and irritation of the roots of the spinal nerves, producing opisthotonos, or contraction of the muscles of the back, which arched the body backwards. This kind of tetanic spasms brought on a spinal deformity in the shape of (lordose) inward curvature, shortening by one inch and a half the stature of the patient, who, under the suffering he was enduring, and the derangement of the vital functions, became emaciated and weak.

In this horrid condition, he consulted Sir B. Brodie, who submitted him to a severe course of mercury, administered in almost every form of preparation, without obtaining salivation. This treatment aggravating his sufferings, and having, according to the patient's expression, "nearly killed him," the patient consulted Dr Guthrie, who entirely disagreed with Dr B.'s treatment, and advised the formation of issues by caustics. This was accordingly done, and they were kept open during six months by repeated applications of the escharotic : this mode increased the weakness of the system, without giving any relief. In this sad condition, he consulted successively Dr Rutledge ; Mr Parrot of Clapham ; J. Symons, Esq., Surgeon of Guy's Hospital ;—Dr Bright also treated him for a gouty diathesis : all without any beneficial results. He then tried Homœopathy under Dr Curie, by whose treatment he felt slightly relieved for a short duration.

He then went under Dr Madden, whose treatment brought on an aggravation of symptoms. He made up his mind then to try Hydropathy, and went to Malvern, under Dr Gully, for

six months, and derived a considerable benefit in about four months: he gained strength, the general health was improved; he could, with the help of two sticks, walk from four to five miles at different times in the course of the day, whilst when he first began the treatment he could hardly move or crawl about.

Shortly afterwards, a crisis came on: the right leg and foot became most fearfully inflamed and ulcerated, forming an immense running wound, extending from the upper half of the calf to the foot, discharging abundantly a very offensive matter. Dr G. prognosticated it a favourable result, and advised him to relinquish the treatment for the time, but to keep the wound open for some months and to let it discharge, which took place to such an extent that, according to the patient's own expression, "the leg was almost rotten." Frightened at the condition his leg was in, he consulted Mr Crichtett, of the London Hospital, who thought that unless the wound healed, the leg would mortify: thus a new treatment was instituted for that purpose. The case was a very embarrassing one: on the one hand, the loss of the limb was almost unavoidable; on the other, the continuous discharge had greatly relieved the spinal region: the pain had so far subsided, that the patient was enabled to lie down in bed and to get rest; whilst previously, for a period of three years, the unfortunate patient had been compelled, by the intense pain produced by the straightening of the spine, to sleep kneeling on an arm-chair, on which he was strapped in order to prevent him from falling down.

Now the leg is healed; but, as Dr Gully had predicted, a repercussion has been produced, and the pain has returned most violently in the spine. Mr C., on the advice of Mr Crichtett, is induced to consult Dr Lonsdale, who treated him for deformity of the spine, and placed him in an orthopædic instrument that the patient wore for many months without deriving the least benefit.

Next, Drs Weber and Frank were consulted about the efficacy of the German Bath in such affections as his. They both advised him to go to Kreatsmach, where he went, and placed himself under Dr Braiger's care for some time. The mineral water of that place is strongly impregnated with iodine, bromine, and chloride of sodium. The patient, anxiously seeking a remedy for such cruel suffering, submitted himself to that new trial; he took the baths and drank the water for six weeks with a perseverance almost incredible, but he was sadly disappointed: this last treatment brought on a derangement of the liver, a violent irritation of the nervous system and spasmodic action of the muscular system, fearfully increased the pain, and caused dropsical swelling of the lower extremities.

In this state, he took the advice of Dr Fischer of Cologne, who thought the waters of Aix-la-Chapelle were likely to be more appropriate to his case: he went accordingly, and placed himself under the direction of Dr Deimar for some months, taking the sulphuretted hydrogen bath, and drinking the water. He got some relief, but nothing materially beneficial, from this treatment.

He decided on returning to England, and place himself under Harrup, of Brighton, who plastered and frictioned him for some months without producing any benefit. In this perplexing conjuncture, after having tried everything he had heard of, he determined to return to Dr Gully at Malvern, the only place where he had met with some favourable results. He started in the summer of 1858.

He remained there six months, when his general health was improved and his strength increased, allowing him to walk a little, but still suffering very acute pain in the dorsal region and lower limbs. While still at Malvern, in November 1858, Mrs Wagstaff, a clairvoyante, known for her lucidity, the wife of a physician from whom she has acquired some knowledge of anatomy and physiology, happened to visit Malvern. Mr C.

went to try her capacities, and she gave him, according to his report, the most marvellous description of his present condition, the seat and nature of his suffering—every spot, every sensation. She stated, amongst other things, that the blood was heavily charged with mercury, that the whole system was poisoned with it, that it was deposited in the bones of the spine, &c., and advised him to take the Electro-Chemical Bath, as the only means of eradicating it from the system.

This advice he followed at once, by beginning to take them at Dr Marsden's, at Malvern, whom I had previously supplied with one of my baths, and all other requisites. He immediately found some relief to his sufferings—his appetite and digestion were improved, he was progressing favourably—when, being in London on business in January 1859, he met with a very serious accident on London Bridge, having been upset from his gig. The shock almost paralysed him, and he was confined to his bed for some time, under the care of Mr Paget and Mr Fergusson, the Queen's surgeon. When sufficiently recovered to move, he came to me. The face was of a sallow complexion, the features drawn, the countenance desponding, with an expression of anxiety and care-worn appearance; he walked with extreme difficulty, with two sticks; stooped enormously, his head being quite out of the centre of gravity; it caused him great trouble to sit down, and he was obliged to rest himself before he could enter into conversation.

He complains of extreme weakness and general debility, indigestion, suffering severely from inactivity of the liver; of acute pain in the spine and down the legs, with numbness and want of circulation, which, he says, seems to be stopped. He has little or no command over his feet; skin dry and rough; appetite has been generally good during all the time of his illness, and digestion tolerable; the bowels have been kept pretty regular by opening medicine; the bladder is partly paralysed, and he cannot void his urine without exerting pres-

sure on the lower part of the abdomen ; is restless at night, and generally feverish. When undressed and ready to go into his bath, I noticed a projection outward of the third lumbar vertebra, resembling an angular curvature, but receding immediately above, like an inward arch. The spine has lost its natural curve ; the back is flat ; the spine concave between the shoulders, which protrude like two wings ; the cervical region is straight, and forms an angle at its junction with the dorsals ; the abdomen has no form, and presents the appearance of the *tabes mesenterum* of children,—viz., large, prominent in the median line, looking more like a bag than anything else ; the legs are varicosed to a very great extent, forming large nodosities, from the folds of the knees down to the dorsum of the feet ; the skin of the body is of a dirty yellowish hue, stained here and there by darker patches ; all the portions of the legs which have ulcerated are of a mahogany colour, turning in some spots to a blackish tint ; the arms and shoulders are emaciated, the head of the arm-bone protruding forward, the whole body having an awkward and unnatural appearance.

It would take too much room and time to enter into the daily particulars of each bath, which, except the difference of more or less elimination or deposits, generally present the same features. Suffice it to say, that after taking half-a-dozen baths, the patient began to experience a kind of unusual comfort ; he slept better ; the general health had gained in many respects ; he continued for about three months with a gradual improvement ; the pains have subsided in several parts ; the general tone and vigour of the body have gone on increasing ; no particular circumstance has happened, but a steady, slow progress. During that period there have been from time to time considerable deposits of crude mercury, calomel, iodine, and iron.

Now, the skin is beginning to peel off the feet ; the toes are almost denuded, showing a number of small or phlyctenoid blisters, as those produced by scalding, discharging in quantity



a brownish and sometimes a green ichorous liquid that saturates the lint, which having been examined by a medical friend of his, under the microscope, exhibited myriads of minute globules of mercury. The acridity of that discharge caused a very intense pain while taking the baths, and in a few days became so excruciating that he described his feelings "as if his feet were in a red-hot furnace." I suggested that he should discontinue the bath for some time, deeming it unnecessary to stimulate any more the action already existing: this action continued nearly two months, when the patient resumed the taking of the baths. This was a crisis; but it is to be remarked that it was quite superficial, the effect of the bath being on all occasions directed to the surface. Thus, instead of disorganising the subjacent tissues, they are cleared of the injurious matter, which is thrown out through the teguments: thus it happens that, although the process may prove very painful, it is always without danger.

When Mr C. returned, I advised him to take the bath on alternate days, when deposits were found in every bath, and occasionally to such an extent as to enable us to collect globules of mercury sufficient to plate a sovereign. After a time, mercury ceased to be deposited, and the feet again became very sore, the toes being again denuded, discharging quite as much as before the most offensive matter, and of such a violent character, that when even it touches the surrounding skin it corrodes and brings it off.

Mercury again appeared for about a dozen baths, and ceased as suddenly; but a great deal of calomel is constantly passing off.

Towards the middle of March, 1860, Mrs Wagstaff, the clairvoyante, being in London, Mr C. consulted her. She stated that there was a great improvement in the general health (which he himself had acknowledged before): the blood was not nearly so much charged with mercury; the liver was in a

more healthy condition, and the viscera very much improved. Still, there was a large deposit of mercury in the lower part of the bones of the spine, and in the legs and feet. She advised him most decidedly to continue the bath.

The description she gave appears to be in such perfect accordance with Mr C.'s own opinion, that it made me desirous to ascertain Mrs W.'s power: accordingly, I made an appointment on my own account, through Mr Barth, of 217 Piccadilly Circus, the inventor of the Oxygen Inhaler, who is her mesmeriser, to meet me at my establishment on March 31st, in order to see if she could describe the *modus operandi* of the electric phenomena during the time Mr B. would be in his bath. Mrs W. was mesmerised in my study, and taken into the bathroom; Mr Barth writing down her examination: one of my assistants was also present. She says, electricity does not produce any shock on the system; it goes through gradually, and comes out all over the body; it comes out at every pore of the skin, and appears of a blue colour. On being asked if she saw the mercury, she answered, "Yes, very distinctly." She added, "Mr C. is a little better than when I saw him last, some days ago, but not much; there is a kind of standing still, as if to accumulate the power; the circulation is altogether in a state of great movement, and the mercury is traversing the system rapidly with the blood; as electricity passes, it draws to it and carries it to copper: the most extraordinary thing is, that the bath having such a drawing effect upon the mercury, on removing it, it does not affect the patient more. I see the mercury which is accumulated in the bones of the spine, at the bottom, just where Mr C. has had a blow, and making effort to get into the blood, and thus be removed into the circulation. The body requires sponging every other time of taking the bath, because the electric action does not cease for a long time—usually forty-eight hours. When patients are nervous, the electricity remains longer in the system. A great deal of mercury is removed at the

present time. I could not have conceived the watery vapour in the atmosphere of the room could be so impregnated with it ; if I were subject to remain a long time in the bath-room, I should be mercurialised. The electricity is now circulating mostly about the spine and brain ; I do not think it advisable to immerse the cerebellum in the bath. I am sure that the bath must do Mr C. good ; it must be so, it cannot be otherwise ; but the system must suffer from losing so large a quantity of foreign matter at once, by the effort of removal and the disruption of the tissues : hence Mr C.'s greater suffering in the feet. But although he endures more pain, he is physically better. The mercury does not come out of the system directly in a mass, but is drawn first out of the bones, then taken up by absorbents, and hence has to go through a long circulation before it is ultimately brought to the surface of the body and eliminated. It is surprising that the mercury is so largely seized by and diffused into the atmosphere : the warmer the air, the greater the diffusion ; it is probable that particles must progress quicker in warm summer weather."

As my object was to make the most complete experiment, I was desirous to see if Mrs W. could also describe the effect of local electricity when transmitted by the electro-magnet.

She was taken into the next room while the following arrangement was made :—The patient was seated on a stool in the bath, so as to have the spine out of the water ; the positive pole of the apparatus was fixed over the lumbar region, whilst the negative pole, attached to a copper plate, was put at the end of the bath, so that the current should pass from the spine direct to the feet. Mrs W. was at a distance in the next room, separated by a wall : when I asked her to come hither, she said, " I need not ; I see perfectly well from here." The battery was then put in action. Mr C. complained that it was too strong, while at the same instant Mrs W. exclaimed the same words : the

power was then diminished, in accordance with the feeling of the patient and the advice of Mrs W.

When all was in due order, I asked her if the electricity was passing from the spine down to the feet : she said, "No, it does not go farther than the middle of the legs." On looking into the bath, I found that it was in consequence of the height of the water, causing the electricity to diffuse itself in the liquid : I noticed also that the feet of the patient were not on the copper plate forming the negative pole of the battery. I told him to put them on it ; and on my inquiring a second time, she answered affirmatively. She said, "The colour of this electricity is not the same ; it is changed to a yellowish red : this form of electricity disturbs the mercury and drives it out of its place, but does not possess the attracting force for it that the bath has. Where mercury is accumulated on any point in mass, this form of application breaks up and disturbs the mass, but does not remove it out of the body like the bath. The electro-magnetic apparatus should be used first, where there is an accumulation of matters in the body, as in the case of arthritic concretions, gouty deposits, nodular matter, for a short time, from ten to fifteen minutes ; the remainder of the time the bath should be used."

I found the above experiment most satisfactory, as all the description Mrs W. has given was in perfect accordance with the inductions I had myself formed on the *modus operandi* of the bath, having explained it scores of time in the same way. I had seen it so with the eyes of the mind, whilst she had corroborated it by the sense or gift of lucid clairvoyance.

I did not know that lady before, nor had she ever had any description of, or seen my bath, and could not, therefore, have any preconceived ideas on the subject. The above I give as a fact. Perhaps, in the course of my reports, I shall have occasion to allude again to the same subject respecting some other patients, and other persons possessing also the gift of clairvoyance.

To return to the case, Mr C. continued to take the bath in my establishment until the end of April, improving steadily; the general health is now most satisfactory, the whole of the functions being in a normal condition; the skin of the face, and the countenance, are natural; Mr C. stands more erect, and walks well enough to attend to his business in London. He had, for the advantage of pure air, taken his abode in Wimbledon, which prevents his coming as regularly as he wished; but being well acquainted, by experience, with the management of the bath, on the one hand, whilst on the other, as an engineer, he understood the construction of the requisites, he decided on fixing up a bath in his own house to avoid the inconvenience of coming so far, or to miss taking his baths regularly. I have since heard that he was progressing favourably, and I believe that he must be well now, if not entirely cured.

#### RATIONALE.

In the above case I have given the names of the gentlemen who attended the patient, not with the intention of making it a personality, but to expose the fallacy of the treatment, and the errors of the scholastic routine, and its dangers. The above recital, it will be confessed, bears a frightful character; it is of a nature to make one shudder at the thought of such sufferings; it is at the same time a striking example of perseverance and courage of endurance; it shows also that none should despair. The treatment prescribed by Sir B. Brodie, also quite contrary to my views, is, nevertheless, the one generally followed on such occasions. I have seen it constantly recommended in affections or inflammation of the brain, the spinal marrow and its envelopes, in paralysis and rheumatism, and in all acute cases, with about the same result. I have not and no one has a right to blame those who follow such a practice. Very far from me to do so. I do not blame the man, but I condemn the system. I am aware that it is bold, and perhaps bad policy on my part; but if

English liberty, which is the grandest endowment of the British nation, gives the right to every man to express his opinion in politics, in religion, on every dogma, why not in medicine? If those at the head of Government are subject to the public censure, why should others be exempt therefrom? Have we not a right for the sake of suffering humanity to raise our voice?

We see in the sequel of the treatment followed by Mr C., that Dr Guthrie has prescribed and applied escharotic issues, and the results have proved their sad effect. I have seen moxas applied all along the vertebral column; I have had for patient a young lady who had been burnt in the same way with a red-hot iron. Blisters, cupping, leeching, have been and are still had recourse to as derivative means in spinal affections, sciatica, and nervous diseases; all these means that we have a right to call cruel, are considered as heroics. It is the belief and faith of those who have been taught so: the result of the prejudices of education; but on all occasions, the results justify the means. I therefore present to the reader the means and the results, leaving him to judge and choose. To those at the summit of the profession, I present them as an apology my confession that I have not less respect for their talent, their humanity and Christian-like feelings, but, as a free thinking man, I candidly object to the practice alluded to above, it being my intimate conviction, as I have pointed out in the Introduction to this work, that such means are contrary to the laws of Nature and the omniscience and goodness of Him who has created her.

May 14, 1861.—Mr C. comes to see me: he looks very healthy; stands erect; and walks deliberately with only one stick. He states that he had continued to take the bath till now; that all pains have subsided; that all functions are regular; and that he feels perfectly well. He thinks that a support applied to the protruding part of the spine would

afford him a great comfort. After making a proper examination, I had a cast taken and contrived an instrument for the purpose, which is now in the hands of the instrument maker.

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**CASE XXVIII.—NOVEMBER 25, 1857.**

*Case of Constipation arising in the origin from the Absorption of Lead, and subsequent Derangement caused by Inorganic Substances. An Affection of Thirty-one Years' standing.*

Mr H. L., married, fourteen children, all living, aged forty-seven. Occupation, glass-cutter, Stourbridge, Worcestershire.

The glass-cutter's putty used in his trade is composed of lead and tin ground together, and the dust raised by the motion of the wheel, &c. is constantly floating about, and inhaled or absorbed into the system, through the mouth and nose; it passes to the stomach and bowels, in which it forms concretions, or is absorbed through the skin, is conveyed into the living tissues, and produces the disease called glass-cutter's colic, which is the affection the patient now suffers from. The common remedy generally used by men working in this trade for relieving the constipation is milk of sulphur.

The symptoms complained of by the patient are, itching and tingling at the bottom of the stomach, with much flatulence; this increases till it becomes a great weighty sensation, causing pains in the loins, spine, and shoulders, accompanied with fullness and pain in the right side, also in the thighs; weakness in the knees, and a soreness, pricking and cracking of the skin of the soles of the feet.

He was first attacked in 1826, when he was twenty-six years old, with colic and constipated bowels, and continued under medical treatment for six weeks until relieved. Again in 1846, after an interval of ten years, he had another attack, more violent than the first; in this instance he was nine days before

the bowels were temporarily relieved ; since that time he has been compelled to use enemas and milk of sulphur. In 1848, two years after, he was again attacked and treated by mercurials ; also in 1849, one year later, he was salivated ; in each case the relief was only for the time ; and since then, for the last eight years he has been subject to periodical attacks, each one more violent than the last, so that for a period of thirty-one years, dating from the first attack, he has been constantly taking medicines under advice.

November 25.—He took his first bath, and the electric brush was applied all over the body, by which he was much refreshed, and the skin threw off a very great elimination, which was also very heavy ; in addition, much fatty and scaly matter floated on the top of the water. Deposits of calomel, iron, and six spots of mercury were found plated on the copper, besides a quantity of effetes.

November 26.—Had no local application to-day ; in all other respects the same ; he is very cheerful.

November 27.—Renew the application of the electric brush ; skin more healthy ; the heavy elimination still continues. Bath deposits of lead and iron in abundance.

November 28.—Continue the electric brush ; elimination much greater from the arms and legs. Deposits of ten small spots of mercury, very dark patches of lead, iodine, also iodide of potassium.

November 30.—Says he feels much better, and that his friends remark it ; still a profuse elimination, with deposits of eight spots of mercury, several of calomel, iodine, and iodide of potassium.

December 1.—Bath charged with sulphuric acid ; applied the electric brush ; slight elimination and very little deposit.

December 2.—Bath as yesterday ; he is in excellent spirits, and feels much better ; heavy elimination still continues ; ten spots of mercury, much calomel in patches, and a little iron.

December 3.—He is quite satisfied with the rapid improve-



ment of his health in so short a time, and feels now quite able to return to his employment, which he is compelled to do, as his employers are wanting his particular kind of work.

He states that he will direct the attention of the workmen in his trade to the importance of these baths as a remedy for their particular complaints.

#### RATIONALE.

This case tells for itself, and requires no comment ; the only remark on which I desire to call attention is the fact that a patient who has laboured during thirty-one years under an intractable disease, when treated by ordinary means, has been cured by eight baths, or otherwise, in eight hours of treatment.

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#### CASE XXIX.—NOVEMBER 26, 1860.

##### *Rheumatic Gout, with Swelling of the Articulations and Constitutional Cachexia.*

MR N., aged thirty-two, married, has a young family ; complaint, general debility, with swelling and stiffness of the articulations.

Nervous lymphatic temperament ; lives in a marshy, damp locality, six miles from the sea. In his infancy, he had the measles, scarlatina, and hooping-cough. About twenty-three years ago he was nearly drowned while bathing in a river ; this brought on a severe attack of bronchitis, which has ever since taken a chronic form, subjecting him to occasional returns from time to time. He has also from the same cause contracted since that time a rheumatic affection, with a contraction and swelling of the right knee, cedema of both ancles, and retraction of the plantar tendons of the right foot, in consequence of which walking became very difficult and painful, sometimes impossible.

Has had medical advice, and states that he has consulted a dozen different medical gentlemen without any permanent benefit; he stated also that during the treatment he took a medicine which kept him in bed for a fortnight in agonising sufferings. His late medical attendant advised him, as a last resource, to try the Electro-Chemical Bath.

When Mr N. consulted me, he stated that in the course of the past week the pain he had experienced was so acute that he could not get five minutes' sleep; he was labouring under great depression of mind; of a pallid yellowish complexion; the eyes sunk in their orbits; the cheek-bones protruding in consequence of the thinness and retraction of the muscles of the face; general emaciation of the whole body; the right knee swollen up so that the bone of the articulation could not be detected; the ancles of both feet, and particularly the right one, were cedematous; the articulations immovable; the toes contracted.

He had for some time and still has rheumatic gout in the great-toe of the left foot; is not able to put on his shoe or to walk, so that I have been obliged to have him carried from his carriage into the bath-room, and lowered into the bath by a machine contrived for the purpose. I found the pulse small and thready; oppression at the chest; appetite bad; digestion difficult; liver torpid; habitual constipation.

He felt comfortable in the bath, and slightly relieved of the pain in the knee; moderate cutaneous elimination; deposits of iodine and antimony, with large spots of calomel in the bottom of the bath; on both sides, near the top, calomel with spots of arsenic intermixed, iodine and antimony mixed lower down.

November 27.—States that he has had three or four hours' sleep; the pain diminished; less dependent; deposits of iron; a large patch of calomel extending from the hips down to the ancles; iodine and a large patch of antimony on the lower part of the sides, with iron on the upper part.

November 28.—Pain, slightly lessened, in other respects much the same as yesterday; cutaneous elimination very little, except on the diseased knee, where it was more abundant; deposits of iodine, antimony, and a streak of calomel on the right side, from the thigh to the foot, also a little under the seat; iodine intermixed with antimony on the sides.

November 29.—A slight improvement in the general symptoms; I ordered the local application of battery current to be used in the water, as a stimulant to the knee; greater elimination from the affected part.

November 30.—Sleep and rest improved; increased to six hours at night.

Complains of a pain at the lower part of the spine, where a sore has appeared from a confluent eruption; remarks that he has a cracking pain at the knee-joint; continued local application to that part, producing a very good elimination, also a little over other parts of the body; deposits of large patches of iodide of potassium and antimony, very thickly coated, surrounded with iodine and calomel on the right side; mixed deposits of antimony and iodine on the sides.

December 1.—No change from yesterday; continued local treatment; deposits, iodine, a considerable portion of antimony and streaks of arsenic all round the head and shoulders, with iodine, iron, and antimony in other parts.

December 3.—Has felt little or no pain since the last bath; tameness in the knee decreasing; elimination good; on getting out of the bath, able to assist himself in dressing; deposits, a uniform coating of iodine and antimony all over.

December 4.—Going on favourably; continued local application; the result evidently beneficial; deposits of patches of calomel on the right side, and streaks mixed with iodine and antimony in all other parts.

December 5.—Rest improved, and pain much relieved; appetite rather better; digestion improved—in fact, doing well; moderate elimination; deposits of iodine mixed with antimony,

and a patch of calomel under the seat, and iodine, antimony, and a deep line of potass round the sides.

December 6.—Improving ; complexion becoming clearer ; does not look so emaciated ; deposits of iodine and antimony mixed with two large patches of calomel by the right knee ; sides, iron and antimony, and a line of sulphuret of potass round the line formed at the surface of the water.

December 7.—Sleeps more soundly daily ; spirits exhilarated ; bowels regular ; deposits of iodine, antimony, and patches of calomel, with antimony, iron, and a line of potass on the sides.

December 8.—No pain, but very much relaxed ; during the last night passed a considerable quantity of mucous matter, which has left him very weak ; elimination very moderate ; deposits of two large spots of calomel by the right knee ; also iron and iodine, with similar indications, and a line of potass, on the sides.

December 9.—Has felt since yesterday a violent pain at the back of the head ; slightly relieved in the bath ; in other respects similar.

December 10.—Pain in the head still continues ; again relieved by the bath ; local application to the knee has considerably reduced the swelling ; great similarity in the deposits.

December 11.—Slight relief from the pain in the head ; generally improved.

December 12.—Stools much improved and regular ; gains strength daily ; could walk yesterday, with the assistance of sticks, about 100 yards without finding himself fatigued ; continued local application ; swelling on the knee reduced, as also the ancles ; elimination from the affected parts good. Deposits similar to the preceding ones.

December 13.—Improving ; gaining flesh.

December 14.—Local application eminently beneficial ; knee-cap slightly perceptible ; can just bend the knee-joint ; elimination about the same, also deposits.

December 15.—The expression of the countenance more

cheerful and happy; enjoys a laugh, and jokes occasionally; skin a more healthy colour; functions healthy.

December 16.—Going on well.

December 17.—About the same as yesterday.

December 18.—Swelling of the ancles reduced; able to get on his shoes, and bear them with comfort; continue local treatment; elimination good; deposits of three patches of calomel between the right knee and ancle; also iodine, antimony, and iron in other parts.

December 19.—Progressing most satisfactorily; deposits increased with urate of soda; others as usual.

From this date to the 21st, took his last bath, when he found his health so much improved that he could return home safely; his business of the end of the year imperatively demanding his presence. On quitting the bath, he was able to walk to his cab without assistance, and very comfortably.

#### RATIONALE.

The deductions we have a right to infer from the nature and character of the foregoing case, deserve to be pointed out as throwing a light on this class of affections whose origin are not generally accounted for. We see a child born and brought up in a damp, marshy locality, and therefore exposed to the absorption of effluvia and miasma, arising in the atmosphere he breathes, from which results the contamination of the blood; that the sanative powers of nature try to get out by an effort, as manifested in the appearance of measles, scarlatina, and hooping-cough. It is needless to observe that eruptive fevers are the result of a taint in the blood, and the retention of morbid matter in the living tissues, and that it is a very common occurrence, when children are labouring under an eruption, that it is more or less reperculated in the system under some adventitious circumstances, such as dampness, the variations of temperature, or some slight imprudence; the

re-absorption of a portion of the virus is enough to create a predisposition in the system to a return of a similar disorder. Thus, we see that the immersion in the water of young Mr N. at the age of about ten or eleven years, gave rise to more serious affections,—viz, a severe bronchitis which, young as he was, assumed a chronic character—whilst at the same time a rheumatismal affection took place, which has also assumed chronicity and gone, and ultimately brings a young man of thirty-two years old to the verge of the grave, in spite of the various treatments he had followed all his life. How is it, that none have proved available? Because the primary disease was induced by the presence of morbid matters, which were consequently extraneous to the organism, and the treatment he had followed had been of a character to add still more extraneous substances in the shape of calomel, iodine, antimony, arsenic, &c., to the morbid matter already existing in the system. Thus it has happened, that instead of improving, he got from bad to worse, until, as I have advanced, all the resources of the healing art were exhausted in vain! whilst after twenty-five days he was relieved, and almost restored to health, by the Electro-Chemical Bath, and a few local applications of electricity, of a complicated affection of twenty-one years' standing.

What is the solution of this difficult problem, and of the *morbus operandi* of the treatment? Merely that instead of throwing immeasurable substances into the economy, those which were retained within, have been thrown out.

This case is one of those whose origin is considered generally as unaccounted for: of those which seem to have neither beginning nor end.

I shall add for the guidance of patients, as well as professional gentlemen, that when we cannot account for a recent cause, we must look for an old one; it is of daily occurrence, when I question my patients, that some point in saying, that

*General Constitutional Derangement, dating from the age of Eighteen Months, the Patient being now Fifteen Years old.*

MARYANNAN A., the grand-daughter of Monsieur F., a tall, fine, and, in appearance, strong girl, very woman-like, was sent shortly after her birth to a wet-nurse in the country; she grew well and healthy up to the age of eighteen months, when it happened that one of the nurse's children fell in the fire. The emotions and fear of the mother turned her milk suddenly, when she imprudently gave the breast to the infant: her milk acted like poison on the child, who soon became indisposed, and subsequently ill. Medical advice was procured, and the child attended to, without for the time being able to account for the cause of the disease. Was it because the nurse did not think that it came from her, or did she believe it to be her interest to remain silent, in not known. While the physician was prescribing on the one hand, the nurse was watching the child

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the ill-nomies of their industry have nothing to do with their present ailment. This opinion, as this case proves, is an erroneous conception. I may venture to say, that with my mode of treatment, it is not of much consequence how the disease commenced, or how long has been its duration, the effect being to remove whatever extraneous or injurious substance may be retained in the body, no matter of what nature; but it must be granted, that under a scientific point of view, and as a warning to the public safety, it becomes of paramount importance to be able to trace a disease from its origin.

May 18, 1861.—Mr N. being in London on business, came to pay me a visit; he is fat, strong, and in perfect good health; he cannot extol enough the value of my treatment.

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on the other, and the babe got insensibly worse and worse, when the parents thought it best to have it home, and consulted a physician in Paris. The accident to the nurse's child had been mentioned in conversation, and when the medical man inquired about the probable origin of the affection, this fact was related to him : his verdict was,—Poisoned by Milk. He prescribed accordingly, and the child rallied a little ; but soon after she was taken with a miliary eruption, which so far terminated favourably ; still, the little patient did not gain in strength—was peevish, dull, and inactive. Another physician was consulted, and while in his hands the child had the measles, but remained debilitated, and another medical man was called in. The child continued about the same during a long time, when she had the scarlatina ; next the small pox : in fact, she had successively almost every eruptive fever. She was in a continuous state of weakness and suffering ; then came dentition, which was painful, difficult, and long. The little patient was a regular martyr to every influence ; she had the hooping-cough, and all the diseases of infancy ; weak, thin, and tall ; she was a constant invalid. She had no taste nor heart for anything ; no disposition for learning ; she was a miserable, crawling little individual. She caught a cold, which turned into asthma, under which she laboured until she came to me.

The catamenia appeared early, between twelve and thirteen ; they were difficult and very painful, to such a degree that she used to roll on the floor in a state of agony. However, this change in life proved favourable ; the young lady acquired some bodily development, and comparative strength ; she had scarcely learned anything, and was placed in a convent for her education, but she could make no progress ; she always had some ailment or other ; and the incessant sufferings to which she had been subject almost from her birth seemed to have paralysed her mental faculties ; so much so, that she was considered in the family as a kind of idiot. Her mother would

scarcely permit her to speak or take part in the conversation ; if she attempted to make an observation, she was told she had better hold her tongue than talk nonsense. This misconception of the mother made the young person timid, and impressed on her a character of stupidity.

After being all her life under the attendance of various medical men, it was decided that she should come to me in company with her grandfather.

She was then a tall girl, without animation in her countenance ; the eyes were dull and without expression ; the complexion sallow ; stooping considerably ; her walk was very uncertain ; and she was so awkward in everything, that at home she was not allowed to touch anything, because she would either spoil or break it ; otherwise was exceedingly good-natured ; and had the artlessness of a mere child, was very affectionate, which inspired me with a great interest.

My first care was to make her feel perfectly at home, to inspire her with confidence by treating her like my own child ; as she felt perfectly at ease, she soon became cheerful, attentive, and willing to please in everything. It happened that the first day of her arrival was the time of her period, which was a convulsive paroxysm.

An infusion of catamenial powder soon relieved her ; the next morning she was quite well, instead of, as usual, suffering for two or three days. That was the only time she suffered from her monthly period while with me.

She took her first bath, which to her great astonishment she found very comfortable, for before she laboured under the apprehension of shocks or painful sensations ; all her fears disappeared at once ; she was full of hope and seemed happy ; a cutaneous elimination at once made its appearance ; the bath was much discoloured with intermixed deposits.

She continued to take the baths daily ; the cutaneous eliminations increased ; the deposits became more distinct, and

were iron, calomel, and antimony, which predominated all the time over the other substances.

Besides the baths, Albertine went through the gymnastic exercises, in which she became clever, and was very much liked for her gaiety and amiability; she was called the merry French young lady; she was also submitted to frictions, and a severe dietetic regimen.

All her pains disappeared one after the other; the catamenia became regular; the asthma subsided; she got strong, I may say vigorous; her mental faculties improved; she took a taste for reading and music, and her voice, which formerly was false or out of compass, became just and true; she sang prettily.

She left after three months and a half of treatment quite cured, and with great regret, crying bitterly at the idea of being obliged to part from the dear good doctor that she would never forget as long as she lived.

#### RATIONALE.

This case should be a warning to mothers and nurses, and impress their minds with their responsibility towards their offspring. How many children die in consequence of being poisoned through the unwholesomeness of the milk destined for the support of their existence! It is not to be supposed that the milk becomes poisonous only in circumstances similar to this; passionate females alter on all occasions the quality of their milk. All indigestible food, or taken in too great quantity, will produce a similar effect; gin, and excess of beer, with the poor; wine, pastry, sweetmeats, with the rich; want of cleanliness and proper garments, and the effects of cold, with the destitute, when the mother and infant are both shivering and unprotected from the weather, will bring disease and cause mortality; whilst undue perspiration and excitement in the ball-room, and deficiency of pure air, will contaminate the blood of the wealthy. It is to be borne in mind that much as is the

blood of the mother, such is her milk, and such is the blood of the baby; and as his body and all its organs are made out of his blood, his health and life depend upon the quality of the mother's milk. I have never understood the great mortality which takes place amongst children. It is contrary to the ordained laws of nature, and I think it would be nearer the truth to say that children are more frequently killed, than to believe that they die naturally.

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### CASE XXXI.—1857.

#### *Mental Hallucination.*

MONSIEUR FÉCHTER, senior, aged sixty-four; married; two children (one, the son, well known in London); artist sculptor, and chaser, of great distinction; began very early in life to work on various metals. In consequence of having very light-coloured hair, it happened that, through the absorption of copper in the skin of the head, it was liable to turn of a greenish hue. It is well to explain that in finishing bronze work, very small files of various forms are used, called in French *rifloirs*, which produce so fine and light a powder that it is blown about with the breath of the mouth like dust, an operation often repeated for clearing the work, so that it penetrates the skin even through the garments. Monsieur F. was a very excitable man, and of so amiable a disposition, that no party could be given amongst the members of his profession without his being invited; so that being very industrious on the one hand, whilst also fond of social pleasures, he used to manage both at the same time, thus spending his life in a double agitation. Although short in stature, he was a very robust man, and bore up during many years, without any serious illness, a life contrary to all hygienic principles. About two years after the Great Exhibition, where

he furnished abundant proofs of his talent amidst the finest pieces exhibited by the firm of Mortimer, his head began to be affected ; very likely the amount of work he had to do in a limited period, had something to do with the excitement of his mind. I was then in Manchester, when my wife wrote to me : " I have seen F. : he is wandering in his mind ; I am quite concerned about him ; is there anything to be done ? " I wrote to him immediately in a friendly way, impressing upon him particular recommendations and prescribing what he should do. He got much better, and started some time after for Paris, where he encountered various annoyances which deranged his mind. He fancied he was constantly persecuted by a number of enemies, that he heard their voices and their threats ; he was in constant dread, which at times made him shake with fear, thereby disturbing all the functions of the animal economy ; then the same voices would call him coward and mock him. Sometimes he used to talk to and expostulate with them, at others he was dreaming of revenge and labouring under a state of great excitement. He bore these tortures during a long time in silence, and unknown to his family and friends, who could not account for his strange manner.

He was subject, he told me, to feel as if a red-hot iron nail was thrust in the middle of his head. In this deplorable condition, his son, after having consulted many medical men and his friends, was advised, as the only thing to be done, to place him in one of the most reputed establishments for the insane : there he remained for eight months without making any progress. He had but lately left it, when I went to Paris, and found him in this sad state. As we were old friends, and I had been the medical adviser of the family when they were in London, he had great confidence in me ; he revealed to me all his thoughts and secrets, which it would be too long to report.

I conceived, my being acquainted with his past life, that

his affection was the result of visceral derangements, and advised him to try my treatment. In order to induce him to do so, I offered him to come as a visitor during a month, and that if I did not succeed in relieving him he would have lost nothing but his time ; and that if he progressed he would be at liberty to continue. He accordingly made up his mind and came.

On taking his first bath, he was covered at once with a profuse elimination ; the copper was very much discoloured with a confused metallic mixture. He felt comfortable and somewhat refreshed when he came out of it.

After he had taken a few more, I found mercury plated on his bath, to his great astonishment, when he assured me that he was positive he had never taken any ; but mercury was in his bath, therefore it had been in his body. On my inquiring if he had ever worked in some place where gilding by mercury was practised, he recollected that, when at Messrs Mortimer's, he was seated near the fireplace where the mercurial preparation for gilding was made.

He went on progressing according to my experience—viz., throwing out a great quantity of matter, although he could scarcely observe any improvement in his feelings.

The quantity of extraneous substances saturating the abdominal viscera was so great, that on pressing that part on each side with both hands, it would pass through the teguments as if blown out from inside with a pair of bellows. This was followed subsequently by an eruption, slight at first, but which increased progressively until it covered nearly the whole of the body: then it was that he began to feel relieved and was conscious of improving.

It would be too long to report the various phases of this extraordinary case ; suffice it to say that the ultimate result was a perfect cure. Monsieur F. returned to Paris in perfect health, with the head fresh, the ideas clear, the complexion rosy.

He has recovered his natural gaiety and his previous vigour. A few days after, I received a letter from his wife, telling me, "Thank you, my good Doctor and excellent friend, you have made a new man of my old one." This good lady, whom I shall always remember, was a dear friend of mine, a good wife and an excellent mother. She was talented as an artist, naturally witty, endowed with a quiet cheerfulness. She used to write in her leisure time, and was a contributor to some French magazines. She was of delicate health; as we were in the habit of corresponding, she used to consult me on her ailments. She wrote to me, in one of her letters, "You are my friend—the Doctor of the body and the soul, as you relieve both."

She had been declining for some years; and two or three months after the return of her husband, she got worse and died almost suddenly. Besides the grief such an unexpected loss gave me, it also caused me great uneasiness on her husband's account, who was very much attached to her. He was very anxious, while with me, to return near her, making plans of happiness for their old days; and I was very much afraid that this misfortune would once more affect his mind: however, he resisted that cruel test. I have seen him since in Paris: he is as well as ever, looking many years younger than he really is.

#### RATIONALE.

This case, which so forcibly corroborates the rationality of my system, is of the highest importance in many respects. It throws a new light on the pathology of insanity, as well as on the treatment of this formidable and frightful affection: it also shows the inadequacy of the means generally adopted for its cure. The first question we may ask is, What is the cause of insanity? Is the seat of the disease in the brain, or in some other part of the organism? What reveals on that point morbid anatomy, and what light has thrown *post-mortem* examination of the subject? Nothing, we may say: it is

generally found that the brain of most of the insane is healthy, whilst some organic lesion exists somewhere. Some patients complain of pains in the head, which are but the reflex action of some visceral disorder. I am aware that this fact is difficult to be made plain to the understanding, and I had a great deal of trouble to make my patient comprehend it: I succeeded, however. One day that I sat in his bath-room talking with him on the subject, he was observing to me that he could not conceive that the pain he experienced in his head could be anywhere else but there. I took the knob of the bell-pull in my hand, and asked him, "If I pull this rope, where will the sound be heard—where will the bell move?"—"Upstairs," he answered. "Exactly," I replied; "but where exists the cause of its moving and making a noise?—is it not in my hand?" He then understood it.

Many medical men think it derogatory to the Profession to take the trouble of instructing a patient on a matter that they think he has no business to be informed of. I have been told by medical friends, that I thereby made myself too cheap; nevertheless, I do not think so: persuasion, according to my notions, is a powerful remedy, beneficial alike to the patient and his medical adviser; because, before convincing another, we must be convinced ourselves; and this requires a sound reasoning, which is the only means by which we arrive at a logical deduction.

When I say that insanity takes place without any disease of the brain, I do not intend to intimate that there is no disease of the brain, but that those diseases do not involve insanity, and that they present different symptoms: as, for example, a mere or transitory determination of blood to the head causes insensibility and falling; if the determination is of long duration with effusion of blood through the vessels of the brain, it causes paralysis; if more violent and the vessels are ruptured, apoplexy and sudden death immediately ensue. If



inflammation of the brain takes place, it may produce delirium, or softening and degeneration of its substance: in such cases the patient loses his senses and vitality, and dies quietly; sometimes living many years unconscious and speechless, the organic functions diminishing progressively until life is extinguished: but all these symptoms are not insanity.

I have had a patient who was labouring under concussion of the brain, having fallen from his horse while hunting, the head striking against a wall; he was unconscious, could not speak, because he had no ideas to communicate: he had been placed in a lunatic asylum, where he became worse, in consequence of the bad treatment he was subjected to, but he was not mad for all that. He progressed sensibly while under my treatment; he used to know the people of my establishment, shake hands with some, express his pleasure by laughter, and produced some sounds that his valet could understand. He amused himself by playing at cards with his wife, the Honourable Mrs —: I regret I cannot give her name, and extol as they deserve her qualities; I may only say that she was a model of conjugal virtues,—devotedness, solicitude, reason, and resignation. If I can find room, I will give a sketch of this interesting case.

I return to my subject: Is there any particular treatment pursued for the cure of insanity? None. During the eight months Mons. F. was in the lunatic establishment, what had been done? Nothing. The manager used to give musical parties, and invite his patients in order to amuse them. My friend told me it was a torture for him to be obliged to attend those entertainments; that to be in company with mad people made him feel his misery more acutely. He wanted to run away, which, in fact, he did once. There is scarcely a monomaniac who has not occasionally some instants of lucidity: when he is aware of being in a lunatic asylum, it is enough to throw him into a new paroxysm of insanity; in a similar manner to

the man who, in a trance, was deposited in the dead-house, and was very near dying from fright when he came to recover his senses.

Now, we have a mode of treatment with the Electro-Chemical Bath. It is not painful—it is not terrifying, as are cold douches on the head; it is not dangerous, and it is applicable in every case, from the quietest patient to the most violent monomaniac, as we are able by local application to control immediately the most serious paroxysms.

I will now resume in a few words the above commentary. Monsieur F. was labouring under mental hallucination, with at times most acute pains in the head: his son was advised, as nothing could be done for him at home, to put him in a lunatic establishment; his father remained there during eight months without making any progress; the case appeared incurable, and without hope. The patient came to me, and in about seven months was radically cured. Why should not the same means be tried in special establishments intended for the treatment of the insane? I would, for humanity's sake, be very happy to furnish all the information which might be required for the purpose.

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#### CASE XXXII.—JUNE 3, 1859.

*Extraordinary Cure of a Case given up by the first Members of the French Faculty, there existing no available mode of Treatment known to have recourse to.*

CHARLES FECHTER, aged thirty-four; married, two children. All those who have admired M. Fechter in his various performances need not be told that, independently of his natural capacities, he must be possessed of the most energetic perseverance and firmness of purpose to have been in so short a

time able to overcome incomprehensible difficulties ; but what is not generally known is, that Fechter is not only a tragedian, a comedian, a *littérateur*—a man possessing general knowledge—but that he is also an artist, whose pencil enables him to plan, trace, and put into form his conceptions : thus, costumes, scenery, and all theatrical arrangements are within his scope. In consequence of these various capacities, he was chosen in 1855 as the director of the Imperial Theatre L'Odéon, one of the finest buildings in Paris, but which, in consequence of being erected so far out of the way, had never succeeded before. Fechter made up his mind to bring the public from all parts of Paris to this retired locality : he accordingly went to work with that indomitable determination which is one of his characteristics. He had to provide everything—new scenery, costumes, and all theatrical requisites,—to form a troop, to attend the rehearsals, to perform, to receive the authors—to attend to the reading of their works. Fechter had no time to rest, to sleep, nor even to take his meals ; it was too much for any man, and although of a very robust constitution, his physical power was not adequate to the task—his strength began to fail ; but, propelled by his courage, he went on, and succeeded in his enterprise. Unfortunately, the result of his incessant efforts was a typhus fever, which brought him to the brink of the grave. Thanks to the talent and assiduous care of Dr Huguier, head surgeon of the Hôpital Beaujon in Paris,\* a devoted friend of his, who took him into his own house in order to watch him more closely, his life was saved after five months of treatment, which was an age of anxiety for his friends, as well as for the public, with whom he had been a constant favourite.

His convalescence was very long : he was physically living, and that was all, as he was languishing under an attack

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\* The gentleman who so successfully performed the remarkable operation of the disarticulation of the forearm on Monsieur Roger, the first tenor of the Opera.

of hypochondriasis, which made his life a sad burden ; he was also labouring under such nervous irritability, that every little thing would upset him and prove a torment : he was, besides, subject to a sudden swelling of the epigastric region, with constant eructation and suffocating sensation ; had no appetite, difficult digestion, and costiveness, whilst he was suffering at the same time from an exostose on the left leg.

The first men of the French Faculty were then consulted, and they all agreed that time was the only remedy for such affections, with a due observance to regimen and hygienic rules. He, therefore, resigned himself to his fate, and waited for eighteen months, that Nature might come to his aid. But, instead of getting better, he was getting worse, obliged now and then to take to his bed. He was then in a state of despair, when it came to his mind that, since I had cured his niece and his father of affections which had been considered incurable, I could, perhaps, do also something for him. He accordingly made up his mind to try my mode of treatment, and wrote to me appointing the day of his arrival.

As in reporting the cases I am giving an historical record of particulars connected with them, it may, perhaps, be interesting to the reader to know that I have known Fechter from the age of seven years old, and have followed him up since his boyhood to his manly and distinguished position ; that more than ordinary friendship has always existed between us ; that we have been united by a kind of parental feeling ; that he looks on me as a father, and calls me so ; and that I love him as if he were my son. Under these circumstances, I leave the reader to judge how anxious I was to restore him to the world : our mutual regard did a part of the work ; relying with the greatest confidence on my sympathy and attachment, his mind soon took a favourable turn, and his hypochondriacal disposition soon gave way : there was, however,

a tangible physical cause to remove, and we began the treatment immediately and vigorously. Fechter has the same determination in everything: he said to me, "Father, do as you like with me; never mind, and do not be afraid—I shall not shrink. Accordingly, every means were used on an increased scale, —the electric power, the temperature, the length of time he was in his bath were used above the general standard; he sometimes took two the same day. A violent eruption was soon brought out all over the body; the most profuse cutaneous elimination was produced daily, and a quantity of various deposits took place, removing at the same time an accumulation of inert matters of old date, as well as the extraneous substances he took as medicines during his last illness. His progress was soon manifest, being in ratio to the severity of the treatment.

Two months and a half after his arrival, I had the gratification of taking him back to his family and friends. He then immediately took an engagement, and ever since has resumed his laborious toils—somewhat neglecting himself with respect to taking due repose, air, exercise, and regular meals; such hygienic rules, without which health is in constant jeopardy.

It would be an unnecessary loss of time to relate the daily particulars of the treatment; suffice it to say, that it presented the same phases which I generally meet with in other cases—viz., a great cutaneous elimination, enormous deposits, and, as a consequence of the extra power employed during the treatment, eruptions and denudations of a severe character on the toes of the feet and other parts of the body.

#### RATIONALE.

Besides the favourable results obtained in this case, which had baffled all the known resources of the healing art, it presents peculiarities bearing on the mode of treatment which

become of very great importance to the public as well as to myself, which I think proper to point out for the guidance of other patients.

I scarcely need mention, it being a natural feeling, that those patients who have been trying all sorts of treatment during many years are subject to a great apprehension when they come to submit themselves to a new method: the mere word electricity is an object of dread, and a great many will from the beginning say, "Please, Doctor, not too strong." This timidity becomes an obstacle to the rapidity of the cure, for two reasons:—firstly, because it prevents us from availing ourselves of the resources we have at our disposal; and secondly, because fear always causes a depression of the mind, and a prejudicial effect on the nervous system. It often happens that patients ask me to postpone such application, which I would otherwise employ at once: others, when they labour under an eruption, which on all occasions is a favourable prognostic, will remain away until it has partly died away, losing thereby a part of the benefit they had already received, by diminishing and sometimes stopping the action on which depends the result we have a right to anticipate, and thereby necessitating, so to speak, to begin again from time to time new treatments instead of a simple one, since the cure depends on all occasions on the eradication of matters which, unless entirely eradicated from the organism, will prevent arriving at a perfect cure.

I wish this point to be perfectly understood, and shall, therefore, try to explain it clearly by a trivial example:—Suppose you want to take a bad, dangerous man (that is, the disease) against his will, out of your house (that is, your body): you open the door (that is, the pores of the skin), you seize the man, and drag him by force near the entrance; each step towards it is evidently a progress (that is, the effect of the treatment); you bring him to the door, you relax your hold, the man makes an effort, escapes from your hands, shuts the door, and hides

himself in some place you do not know (that is, the repercussion of the disease). What has been gained in such a case? Proper means have been used; the work has been nearly accomplished, when, but for one moment relax, all has been lost, and has to be begun over again.

This is a simile of what ought to take place by means of the treatment. A power—electricity—enters the body, seizes upon all offensive matters, drags them to the pores of the skin, which open to let them out. As long as this state lasts, the enemy leaves the place; but if the doors (the pores of the skin) are permitted to close, the enemy is shut in—the action diminishes, time is lost, and unless the same process is repeated, the action restored, and the elimination removed, the patient may be relieved, but not radically cured.

In Fechter's case, we have an example of what a manly determination and perseverance will produce. When I used to ask him if it was too strong, if I should modify the power? his answer was, "Go on." He has had a most severe eruption; the toes of his feet were almost denuded, as well as other parts of the body; but in proportion to the injury produced on the skin, were the internals improved.

A little circumstance, slight or unimportant in appearance, I must mention, as it has a significant bearing with regard to the promotion of the organic functions. Fechter was living and boarding with me: one morning, at breakfast, some eggs were brought on table, when he observed that eggs cooked in that way did not agree with him; I proposed something else, when he said, "Oh! never mind, for once." While still seated at table, the bath attendant came to say that his bath was ready. Fechter went immediately to it; he digested well his breakfast, and ever since he has been able to enjoy the eggs, which formerly did not agree with him. At first sight, this may appear strange: still, it is but a natural consequence of the *modus operandi* of the treatment.

We have stated that the kind of electricity employed in the bath is the electricity of decomposition. Now, let us ask, what is digestion? Evidently, the decomposition of our food by chemical action. But if that action is increased by electricity, digestion must, as a matter of course, be more easy and more perfect; and this is the case, as the taking of the bath always promotes appetite.

I need not say any more on this interesting case—most striking in its results, and most satisfactory to my feelings. I have stated from the beginning, that my determination in pursuing my mode of treatment was the result of the intimate conviction of its real value; but what of that? What has my personal conviction to do with the public confidence? Have I a right to expect that the public will take my word in preference to others? At the beginning, a great many pretenders to scientific knowledge were, without previous investigation, calling my system humbug; my treatment, a thing not only irrational, but dangerous: in consequence of which, many patients I had since, and who have been cured, had been deterred to come to me for a long time.

I certainly trust that the veracity of the facts I advance in this book will not be an object of doubt; but should it happen that in the number some would, through any equivocation, doubt my statements, I am in a situation to throw the responsibility of the facts on a great many who will vouch for the truth of the facts I have reported.

If I have not given the names of most of my patients—not even their real initials, it is from motives that every one will appreciate: still, I am authorised to refer in private to a great many. With regard to Fechter, he has of his own accord openly taken the initiative in sending a letter, printed in *Le Courrier de l'Europe*, and of which I give a copy in the following lines, having besides a full authorisation to refer to him in all circum-



stances ; this patient of mine being sufficiently conspicuous and well known to the public in general, for any one wishing for a reference to apply to him at once.

Before Fechter became my patient, after his niece and father had been cured by my mode of treatment, I asked him to send me a written acknowledgment of the successful issue of those cases. I had then good reason for so doing, as it had been reported that after his father had returned to Paris he became worse than ever. This untruthful statement had been reported in my presence, and I had no proof but my assertion to contradict it. What could have been the object of the individual who originated that slander, it would be difficult to say : I can only attribute it to low and despicable malice ! a guilty act which could have proved much more prejudicial to the public interest than to mine, considering the great number of sufferers who would have been doomed to an existence of misery.

In reply to my letter, Fechter answered :

“Tu me demande franchement une lettre qui relate l'état des deux malades soignés par toi avec tant de succès. Comment veux-tu que je l'écrive ?—au Docteur et officiellement, ou à *l'ami sauveur* qui a rendu à la vie et à la raison ma nièce et mon père ?

“Dis-moi la forme que tu désires, et je serai bien heureux de mettre ma plume au service de mon cœur en traçant ta louange.”

(TRANSLATION.)

“You ask me for a letter frankly relating the state of the two patients you have so successfully treated. How do you wish me to word it ?—shall I write officially to the Doctor, or to the saviour-friend who has restored life and reason to my niece and my father ?

“Tell me what form you wish me to adopt ; I shall be most happy to make my pen obey the dictates of my heart in tracing your praise.”

“Paris, 26 Mars, 1860.

“AU REDACTEUR EN CHEF DU ‘COURRIER DE L’EUROPE.’

“MONSIEUR,

“Je viens de lire dans une feuille française la reproduction d’un article scientifique emprunté à votre estimable journal : il s’agit des Bains Electriques et de l’Etablissement inappréciable du Dr Caplin.

“Je crois de mon devoir d’honnête homme d’apporter ma pierre à l’édifice de réputation que vous lui élevez à si juste titre, et je viens joindre mon nom à vos paroles, ma reconnaissance à votre loyal enthousiasme ! Merci pour lui, Monsieur ; merci surtout pour ceux qui souffrent, et qui, guidés par vos lumières, peuvent trouver enfin le chemin du salut, c’est à dire, la santé.

“Nul, mieux que moi, Monsieur, ne peut offrir une vivante image de la resurrection physique et morale due à ce merveilleux système.

“Atteint, il y a trois années, d’une fièvre typhoïde qui me jeta pour cinq mois au lit, m’enlevant à la scène au milieu de mes travaux ; miraculeusement sauvé de cette première atteinte par l’une de nos grandes célébrités parisiennes dont j’ai l’honneur d’être l’ami, le Dr Huguier (de l’Hospice Beaujon), nous ne pûmes aussi facilement nous rendre maîtres des suites de cette horrible maladie ; et malgré les soins touchants et l’habileté proverbiale de ce prince de la médecine, de mal en rechutes je trainai dixhuit mois dans un découragement profond qui me mena tout droit à l’hypocondrie !

“J’étais mort pour le théâtre ! j’étais, si je le puis dire, mort pour la vie !

“Une prostration perpétuelle, la haine de tout contact humain, des gonflements spontanés qui m’étouffaient tout à coup et me forçaient à reprendre le lit, me consumaient peu à peu. ‘La science n’y peut rien,’ disait-on ; ‘cela ne peut passer qu’avec le tems !’

“Le tems, pour moi, c’était la mort !

“C’est dans cet état, Monsieur, que j’arrivai le 3 juin, 1859, No. 9 York place, Portman square, chez le Dr Caplin.

“Quinze jours après l’hypocondrie avait fait place à la raison, presque à la gaité ; un mois plus tard les gonflements dispa-

raissaient, et je rentrais à Paris au bout de deux mois et demi, sain de corps et d'esprit, et prêt à reprendre mes travaux abandonnés; ce dont je fis immédiatement preuve en reparaissant au théâtre par une série de représentations qui durent depuis six mois sans la moindre altération de santé.

“J'irai d'ailleurs, si vous le permettez, vous porter moi-même l'échantillon d'un homme remis à neuf, en vous *saluant d'ici* à quelques semaines dans vos bureaux de Londres. Cette fois je pars en tête d'une nombreuse caravane de malades émerveillés de ma guérison, et qui veulent, à leur tour, boire à la fontaine de Jouvence, à la source de la vie.

“Voici une bien longue lettre pour votre *tems si occupé* ! et cependant il me faut vous dire encore que je ne suis pas le seul de ma famille que le Dr Caplin a sauvé. Je lui dois la *raison* de mon père, et la vie d'une nièce ! Aussi peut-il disposer de ces êtres qu'il a rétablis, de cette vie que nous lui devons !

“Recevez, Monsieur, l'assurance de ma parfaite considération.

(Signé) “C. FECHTER, Comédien.

“20 Rue de Navarin.”

(TRANSLATION.)

“TO THE EDITOR OF THE ‘COURRIER DE L'EUROPE.’

“SIR,

“I have just read, in a French paper, the reproduction of a scientific article, borrowed from your valuable journal, relative to the Electro-Chemical Bath and inappreciable Establishment of Dr Caplin.

“I believe it my duty, as an honest man, to add a stone to the edifice of reputation you are so justly erecting in his behalf; and I come forward to join my name in support of your opinion, and the expression of my gratitude to your honest enthusiasm ! I thank you for him, Sir ; I particularly thank you on behalf of the sufferers who, guided by your recommendation, will be able to find the path of safety—viz., the blessings of health.

“No one better than myself, Sir, can offer a living image of the physical and moral resurrection obtained by this marvellous system. Seized, three years ago, by a typhoid fever, which confined me during five months to my bed, and stayed me in the middle of my career, I was miraculously saved from this first

attack by one of our great Parisian celebrities, my friend Dr Huguier, head Surgeon of the Hospital Beaujon. But it was not so easy to get rid of the baneful consequences of this horrid **malady**; and notwithstanding the affectionate care and the proverbial ability of this eminent master of the healing art, I went on from bad to worse, during eighteen months, in a profound **discouragement** which brought me to a state of hypochondriasis. I was dead for the theatre—I was, so to speak, dead alive. A constant prostration, a disgust for all human intercourse, subject to spontaneous swelling, accompanied with sudden suffocation, which compelled me to take to my bed, were little by little consuming my existence. Science was unavailable; I was told time alone would prove a remedy: time for me was nothing else but death!

“It was in this sad state, Sir, that I arrived, on the 3rd of June, 1859, at 9 York place, Portman square, at Dr Caplin’s Establishment. After a fortnight’s treatment, the hypochondriac state had subsided; I had recovered my reason, almost my gaiety; and in the course of two months and a half, I returned to Paris, sound in body and mind, able to resume my avocations, so long neglected; which I immediately did by reappearing on the stage in a series of performances, which have now continued uninterruptedly for the last six months, without the least alteration in my health.

“I intend to do myself the pleasure, if you will permit me, to call at your office in a few weeks, to present you my kind regards, and to show you a sample of a man re-made anew in my own person. This time I am going to start at the head of a numerous caravan of patients, who are so struck by my recovery that they intend also to drink at the fountain of Youth, at the spring of life!

“This is a very long letter to address to a person whose time is so precious as yours must be: however, I cannot help adding that I am not the only one that Dr Caplin has saved in my family—I am also indebted to him for the restoration of my father’s mind, and the life of one of my nieces! Has he not a right, therefore, to rely on those he has restored to an existence for which they are indebted to him?

“Accept, Sir, the assurance of my perfect consideration.

“CHAS. FECHTER, Comedian.

“20 Rue Navarin, Paris.”

## CASE XXXIII.

*Case of General Debility, produced by too Early Marriage, and the Misapplication of Drugs.*

MRS CAPT. L., aged twenty; married at seventeen years old; had a child, which she suckled. The baby is healthy, and a fine infant; but the mother, a very interesting, intelligent lady, is almost ruined in health. She complains of dyspepsia, languid circulation, derangement of the liver, and excessive weakness.

She has been for nearly two years under medical treatment; has taken a great deal of preparation of iron, quinine, and other drugs, the names of which she does not know. As she was getting from bad to worse, she was recommended by a friend to try my bath.

She is pale, very emaciated, despondent, and debilitated in every way. The eyes are dull, and surrounded by a bluish circle.

On getting into her bath, she experienced a sensation of faintness; soon, however, recovered, and told me, in a languid tone, that she was getting more comfortable. A slight elimination appeared, with perspiration over the upper lip. On leaving the bath, a deposit of iron is noticed all round the copper, with a slight mingled discoloration on the other parts of the bath. She complains of feeling very weak.

At the second bath, the elimination was more profuse, and the bath more discoloured. She again felt as if she was ready to faint.

During three other baths, the weakness appeared worse; still, in the intervals she feels better: her appetite has increased; she sleeps better, and is more cheerful.

She has now a kind of apprehension in getting into the bath; she is afraid of the feeling of languor she experiences.

After taking the sixth bath, she feels so very weak that she has not the strength to stand up and dress : a couch is brought in her room for her to lie upon, and due care is paid to her situation. She remained about four hours before she could muster strength and courage enough to get up.

The elimination has been very profuse ; the face flushed, and covered with perspiration. Considerable deposits of iron, calomel, and antimony are found in the bath.

The next day, the patient states that she had felt better in the evening ; that she relished her dinner, and slept well. This morning she is lively and cheerful ; she feels stronger, and states that if she continues to progress in the same degree, she is sure she will be soon cured. Her prognostic was verified after a course of twelve baths.

Her husband took a house at Deal, in Kent, near the sea-side, where I paid her a visit the following year. The mother and child were enjoying perfect health.

In the beginning of May last, they came to London and paid me a visit. She was going on a tour through France and Switzerland ; she was strong and healthy. She has had two children since I saw her. She told me that she often thinks of me, and what would have become of her had she not followed my treatment.

As I cannot report every case, this lady's name was not on the list I proposed to publish ; but her presence in town reminded me of all the particulars, and I thought it worth being reported, as a warning which may prove useful.

#### RATIONALE.

If anything contributes to ruin the constitution of young ladies in England, where we meet so many invalids at an age when they ought to be enjoying all their natural vigour in its plenitude, it is, no doubt, owing to too early marriage, when young persons, before being fully developed, and requiring all

the vitality they are possessed of, have to supply out of their constitution the existence and development of a new being. Dr T. Inman, Member of the Royal College of Physicians, &c., in his work entitled 'Foundation for a New Theory in the Practice of Medicine,' passes very judicious remarks on this subject.

It is evident that any female parting with half the vital force she herself requires for the performance of the organic functions, cannot do otherwise than ruin her constitution. It is exactly the same as if a person who only had the quantity of food requisite for his support should part with half of it to some one else.

When my patient married, the mammary glands were not as yet developed: they increased, however, according to the provident laws of nature to furnish the lactation; but the skin could not yield quick enough over the glands, and became abraded in a radiating direction from the nipple to the basis of the bosom, leaving unsightly marks on that portion of the female figure which is a characteristic of woman's beauty.

I inquired of the lady if she had grown much since her marriage: she told me she was now three inches taller, but far from being stout in proportion. So much for the consequences of early marriages, when the body has not obtained all its development.

With regard to the treatment by steel, quinine, and calomel, the case proved that it was not logically appropriate: first, because it did not cure the patient; secondly, because these substances were rejected from the organism as inert matters. Perhaps it will be remarked that quinine is not a mineral substance. That is true; but, for all that, it is not much better. Quinine is an extract of bark; but what is a vegetable extract, and how is it obtained? By boiling for hours what plant you choose, at a temperature of  $212^{\circ}$ : when this is done, the water is evaporated, and the residue is what is called extract; but if

the matter so extracted remains insoluble at a temperature of  $212^{\circ}$ , how can we expect that it can become soluble at the temperature of the body—viz.  $99.25$ , which is less than half the temperature of boiling water? We may ask, What can the dynamic action of a substance be when reduced to the condition of inert and extraneous matter? Can it be converted into organic tissues? Still, it is given as a corroborant and tonic medicine, whilst it has the reverse effect; yes, the reverse effect! If quinine has the virtue of removing fever, which is an increase of the heat or inflammation of the blood, how can it possess at the same time the property of increasing the circulation? If we were to compare the blood in fever to boiling water, and we had for object to cool the water as we intend to cool the blood in fever, we have only to put in the water either pebbles or sand, and we shall diminish its temperature. Thus it is that quinine, iron, and the like are lowering or hyposthenising, as Dr Jacomini calls them, in his excellent work. Therefore, what I here advance, also it is contrary to opinions generally received, is proved to be true by the fact that my patient had been treated during two years with iron and quinine, and was getting worse; whilst she got well in twelve days by extracting these drugs from her system.

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#### CASE XXXIV.

##### *Case of Debility, brought on by Menstrual Hæmorrhage.*

Mrs N., a lady of about thirty-six years of age, married—a tall, handsome woman—had through mental anxiety become excessively nervous, which brought on a great and general debility, particularly manifesting itself on the uterine organs in the shape of hæmorrhagia. Not only the catamenial discharge is enormous, but it comes on irregularly, sometimes every ten or fourteen



days. She is very sensitive and irritable ; the least thing upsets her, when she is subject to hysterical fits of crying : otherwise, that lady, when in her normal condition, is very cheerful and naturally witty.

Mrs N. had consulted many medical men ; had taken a great deal of medicine, particularly steel and quinine, as tonics, and alterative in the form of calomel ; notwithstanding which she had been getting worse.

She was recommended by a friend of hers to consult me. Mrs N., a person of good taste, knows how to dissimulate the effects of her affection : nevertheless, her complexion, her hollow cheeks, the expression of her eyes, and general countenance, testify to her sufferings. On relating her case, tears are in her eyes, and she awaits with great anxiety my opinion of her case. I prognosticate a favourable result ; I shall give my reason why in the Rationale. I must not omit to state that the patient was labouring under gastralgia, constipation and flatulency, and coldness of the extremities.

When the patient was arranged in her bath, I went in, not only to inspect if everything was in proper working order, but for the purpose of talking with her and to give her confidence. I need not say that ladies generally feel a certain uneasiness the first time they visit a new medical adviser ; such an impression is prejudicial to the patient, and I make it a rule, as far as lies in my power, to make their mind easy, and to make them feel at home. This I easily obtain.

When a patient says to her medical adviser, " You are very kind—I am much obliged—I understand your plan," you are the master of her mind, and you find her disposed to follow your dictates.

Mrs N. was at once in this favourable disposition ; she spoke of her trouble, without reserve, and by so doing gave me the opportunity to enter into all the particulars of her case. She felt comfortable in her bath ; I showed her the elimination

coming out of the skin, &c. When she was dressed, I returned to show her the discolorations of the copper, and the various strata of the substances forming the deposits, consisting of a great quantity of iron, antimony, and calomel. She left quite delighted, feeling lighter, more exhilarated, and in very good spirits.

During the next four baths, she was improving in strength and comfortable in feelings; the elimination and deposits being of the same character as the first.

The next time, she came quite depressed: her hæmorrhage had appeared. She thought she had better not take the bath; I advised to the contrary, and she accordingly complied.

I advised her about her diet; prescribed charcoal powders for the flatus, an infusion of matico for the hæmorrhage, appropriate frictions on the legs and the lower extremity of the spine, and camphorated spirit over the pubis. The next day she was much better, and the following it stopped, instead of having increased for some days as usual. For three weeks the patient went on without flux, till the time of her catamenial period, which was natural. Mrs N. feels well: the appetite is improved; she sleeps comfortably, and is stronger. From that time she thought she was safe, and began to come irregularly.

One day she arrived, and from her carriage sent word she was very ill. My Secretary went to her, and had great trouble to lead her into the waiting-room, where she fainted before I had time to come to her. I found her shivering, trembling in all her limbs, crying, and unconscious. She was taken into my study, where, with proper means, she recovered. Her present state was the result of two causes: first, neglecting the treatment; secondly, a vexation she had experienced: however, taking the bath put her quite right. The cutaneous elimination was still profuse every time she came, and the deposits more intense.

Notwithstanding my expostulations, Mrs N. paid little attention to my advice ; she had too great a confidence in the efficacy of my treatment : she would come now and then, when convenient, and neglect in many respects my recommendations.

She came one day in a state of despair : the hæmorrhage had reappeared, with the train of the whole of the previous symptoms. She cried bitterly, and thought that she could not live long. I, however, succeeded in raising her hopes, and promised her an ultimate favourable result, if she would punctually follow my advice, which she did, and in about a month more was entirely restored ; although she had the fatigue of a removal and attending to the purchase of furniture, the arrangement and decoration of a new house. She also undertook a journey to France and Belgium with her husband, and returned home strong and in good health. I have seen her many times since, when she occasionally came to take a bath, and went to visit her and dine at her house, when she was in the full enjoyment of health.

#### RATIONALE.

The readers will, I trust, understand that by commenting on the various cases I put under their eyes, my object, so to speak, is to give some instructions which may afford the means of judging for themselves of the rationality of the subjects I am treating of. I do not wish to enforce my opinion on their mind, and to believe with their eyes closed, and without understanding the matter.

If I say that I recommend my bath for suspended catamenia as well as for menstrual hæmorrhage, it might perhaps appear strange that I use the same means for curing opposite and contrary diseases ! I must state first, that little as yet is known of those affections, the few data existing being the hypothetic opinions of some authors who confess their ignorance on the

subject. The last work published on this matter, in 1859, is by Dr L. A. Becquerel, Physician of the Hôpital de la Pitié, and Professor to the Faculty of Medicine of Paris &c., entitled 'Clinical Treatise of the Diseases of the Uterus and its Appendages.' Although very elaborate, clever, and incontestably valuable, as treating *ex-professo* of all the various affections of the womb, he does not, however, arrive at any positive demonstrative conclusion: we shall, therefore, venture to take upon ourselves such explanation as may be understood by the reader, and, at the same time, demonstrate how the Electro-Chemical Bath is applicable to both cases, viz., to *dysmenorrhœa*, or difficult and painful menstruation, with an alteration in the nature of the discharge, either in quantity or the character of the evacuation of the blood, often followed by fluxes and hæmorrhage; second, to *amenorrhœa*, or suspension, either partial or complete, of the catamenial discharge.

Without entering on what could be called a discussion on all the points related with this disease, nor all the various causes which produce it, I shall, starting from a well-known point, say, that spontaneous flux or hæmorrhage is the weakness or relaxation of the blood-vessels of the uterus, when the blood escapes from its natural channels. Leaving aside the various primary causes, which if demonstrated here would carry me too far, let us say only, that hæmorrhage might be called a secondary symptom, or, as it is technically called, symptomatic affection; viz., a disease arising from another disease. Let us, however, for the sake of clearness, bring forth another example, viz., a sanguine congestion. What is a congestion? Every one knows. Simply an extra accumulation of blood in some parts of the organism. But, as the mass of the blood is not in greater amount in the system, it is evident that if there exists an excess of blood in some part of the body, there must be a deficiency in some other. If the accumulation happens to take place in a central part, and in a vascular organ, such as the womb, the whole

surrounding parts—viz., the periphery of the body—are deprived of their quantum of blood, the skin becomes blanched and cold, and the patient is subject to chilliness ; the extremities become cold, sometimes to a distressing intensity. Why? Because, where there is no blood there is no heat. Where there is neither, there is no nutrition, therefore no repairs of the tissues or keeping up. Emaciation is the consequence, and general debility the result ; a want of vitality seizes upon the organism, the blood-vessels have no power to contain their contents, and hæmorrhage takes place.

In what way, now, can the Electro-Chemical Bath prove beneficial in such a case, when it is known that the taking of ordinary baths relaxes and weakens, even at a low temperature? The reason is simply because its action and *modus operandi* is quite the contrary to that of any other bath. Let us see what it produces, and well understand that the warm liquid in which the patient lies is not the acting principle, but merely the means to apply it ; electricity being the therapeutic agent and regenerating motor. The electric fluid enters by one hand into the body, saturates instantaneously the whole of the organism, where it exerts a general pressure and comes out by all the pores of the skin, forming millions of radiating currents of electricity. In passing from within to without, it forces the blood to the surface of the body, increasing thereby and equalising the general circulation, and consequently diminishing any local congestion or inflammation. The organ which was distended by an accumulation of blood is relieved ; its tissues, such as the coats of the blood-vessels, resume their natural condition, regain their normal resistance and contractibility ; the parts which before were deprived of nutrition are now supplied with their quantum of blood ; nutrition takes place generally, the strength is restored and the equilibrium is re-established. Meanwhile the impurities of the blood are carried out ; and as no drugs are requisite to produce such phenomena, nothing extraneous, no iron or steel,

no mercury, no extracts, no inorganic substances are introduced into the system, and, as Sir John Forbes, already cited, says in his work on *Nature and Art in Disease*, "Nature cures herself;" the only thing required to be taken being only good food in appropriate quantity,—proper food being, in spite of other accredited opinions, the real and only *tonic* Nature has ever provided for the restoration of the body. If, therefore, uterine and spontaneous hæmorrhages produce general debility and what is called cachexia, all kinds of cachexiæ, such as those I have before reported, are cured according to the same principle.

I have, in the foregoing remarks, alluded to the opposite disease of the one present—viz., amenorrhœa, or the suspension or stoppage of the menstrual discharge, including what is commonly called green sickness in virgins. Does not the green appearance of patients tell at once that this disease is a disease of the blood and a want of due circulation? It is generally considered that the cause of that disorder resides in the non-appearance of the catamenia with girls arrived at the age of puberty. Here, again, the effect is taken for the cause; instead of retention of the menses being the origin of the disorder alluded to, the root of it is in the general circulation. You meet with a pale greenish complexion in a girl who has not as yet menstruated: she looks bloodless; how can she throw out an excess of blood which she has not? I have heard say that such girls should be married. What a popular absurdity! What a mother such a being would be! and what would be her children?

We now pass to the adult female affected by menstrual retention, and ask how the Electro-Chemical Bath can prove efficient in this case? Here we have an obstruction to remove: the blood is generally coagulated,—so much so, that sometimes it comes in clots. It is well to bear in mind, that amenorrhœa is, like dysmenorrhœa, a symptomatic affection, arising from various causes which we leave aside, taking the disease as it stands—namely, an obstacle to the performance of the function.

What does electricity do in such a case? When it is prevented from passing freely, it accumulates in proportion to the obstacle, and progressively acquires a power by which the obstacle is diffused and removed; at the same time, giving tone to the organ,—in this sense, well known by physiologists, that any organ not performing its function loses its strength, and that the restoration of the functions increases its energy. It is on this fact that the axiom “Muscular exertion increases muscular power” is founded.

In the following case, an illustration will be found to corroborate the above assertion.

With regard to the case now under consideration, by comparing the symptoms complained of by the patient and the description or nature of the disease with the *modus operandi* of the remedy, the reader, I trust, will understand at once the subject.

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### CASE XXXV.

#### *Catamenial Suppression, accompanied with Paralytic Fits.*

MISS L., aged thirty, lymphatic temperament, a very distinguished artist on the harp and pianoforte; has a particular play of her own, by which she gives such an expression to her instrument that I have heard melomanists say, “This is the poetry of music.”

Miss L. is a tall, fine, well-developed, and rather stout person; she has all the appearance of good health, but is, however, a great sufferer. For the last five years the menstrual discharge has been suppressed, and every month, at the time it should appear, this lady became entirely paralysed in the legs, and partially so in the arms, during four or five days. This

unfortunate circumstance has been a great drawback in her professional capacity, it having prevented her from getting annual engagements for concerts, and thereby to make herself known; she having been deprived, in consequence of her affliction, of the advantages and benefits of her great talent. She is not, however, despondent; her temper is even, and she seems generally cheerful.

Miss L. has had medical advice everywhere, while travelling through England, Scotland, Ireland, and the Continent, where she has consulted a great many medical men, and tried everything. While in Manchester, she was recommended to see the French doctor: I was so called. After my having inquired of all the particulars of her case, and being told that although the discharge did not appear, the time of her period was regularly marked by the symptoms alluded to, I told her to come the day previous to it, in the afternoon.

I first submitted her to gymnastic exercises, particularly jumping, till the circulation and respiration were increased and perspiration brought on; this last function being a great deal impaired, as she had informed me, as whatever bodily exercise she took she never perspired. Next, I put her into a vapour-bath, and applied galvanic electricity from the lumbar region over the pubis by means of a proper arrangement contrived for the purpose, the patient being at the same time under the influence of the vapour-bath, and of an electric current passing through the pelvic organ. I maintained her thus until she felt almost exhausted and nearly fainting; I then gave her a cup of a hot infusion of catamemial powder. After being dressed, she returned home in a cab, accompanied by one of my nurses, with the injunction to put her immediately in a warm bed, and recommended her to come the next morning by whatever means she could manage; my intention being to repeat the same operation, if requisite, during her paralysis, if she had it. She came accordingly, looking as pale as death: the catamenia had



come on during the night; she had not had any symptom of paralysis, and, except an excessive prostration, she was otherwise perfectly well.

In order to repeat the same process, it was agreed that she should come the next month; but the catamenial discharge came on a day or two before she expected.

Miss L. remained in Manchester about one year, and used to come occasionally to my gymnasium. She had not had any kind of relapse all that time; she improved in her figure, which was, as I have stated, rather too stout; her health was perfect.

#### RATIONALE.

In this case, the Electro-Chemical Bath was not employed. It was but some time after, whilst employing electricity in another case for transmitting into the tissues the medicinal virtue of plants, that the idea of the Electro-Chemical Bath came to my mind for the first time. Since, I have used it many times in similar cases, always with success, either to promote or modify the catamenial discharge, as I have demonstrated. However, should I meet with an equally obstinate and severe case as this one, I should again employ the same kind of treatment, as acting more locally than the bath, supposing that I should not have to contend at the same time with other diseases which would require other means.

Electricity is Electricity—viz., an incomprehensible power, possessing in all circumstances the same virtue, it is no matter by whom it may be employed, providing the operator possesses the requisite knowledge to apply it. Some authors, such as Monsieur Bekensteiner of Lyons, consider that the static electricity, the one produced by friction, is the only true medical electricity. The generality of those who call themselves medical electricians think that the electro-magnet or galvanism is the only one which should be used as a therapeutic agent;—

others, again, advocate the voltaic pile as deserving the preference. This belief is a positive error : these three kinds of electricity are equally useful for medical purposes, but they must be applied according to the case. The great point, I may say the difficulty, was to formulate its mode of application : this has been the object of my researches and studies. If, according to my theory and doctrine on the causes and nature of diseases (see Introduction), I consider the Electro-Chemical Bath as the most important, I also use all the other electrical appliances, as I have done in the present case.

I have in the preceding report given a cursory sketch of the pathology of those two affections to which females are so constantly subject. In the first instance, the patient was weak, debilitated, and losing a great quantity of blood ; in the present case, the patient was tall, strong, fat, and had not menstruated for five years. Both patients had had medical advice, and both had followed the various usual treatments known and generally employed without either of the patients being relieved. Both have been cured by electricity, but differently applied : it shows, therefore, that electric treatment judiciously applied supersedes all the means which had been had recourse to, previously to my mode of practice.

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### CASE XXXVI.

*Contamination of the Blood and Derangement of all the Vital Functions, with Ulcers in the Womb.*

MRS Q., from Hampshire, aged thirty-six, married, two children, has suffered for eight or nine years from an affection which her medical advisers were unable to qualify with a proper name, as each of them called it by a different appellation. Mrs Q. herself cannot specify any particular place

or organ as the seat of her affection : she suffers everywhere—the chest, the liver, the stomach, the limbs. The treatment she followed while with me proves it to be a contamination of the blood, so evidently corroborated by previous circumstances, that her children (two girls) have been subject, ever since their birth, to all kinds of cutaneous eruptions. The patient had and does still suffer from ulcers of the womb ; pulse small, quick and intermittent ; constant dyspepsia ; action of the bowels irregular and painful ; giddiness, prostration, and great despondency. She had come to London on purpose for medical advice, which she obtained from various practitioners who prescribed for her ; when she would return to her home, to follow their treatment, which proved of no avail.

Mrs Q. was in London for the purpose of consulting a physician who had been recommended to her, whilst her sister, having heard of my establishment, had called on me to inquire about my mode of treatment. Finding it quite different from those her sister had hitherto followed, she brought her to me.

Mrs Q. is a person of middling stature, lymphatic temperament. The skin of the face looks as if transparent ; the eyes grey-blue, with a dark circle round them ; auburn hair ; a kind of puffiness about her ; exceedingly despondent : the whole countenance indicates suffering, weakness, and fear. She is three months advanced in her pregnancy, very apprehensive of the treatment, and appears to consent to taking the bath under the influence of her sister, who is the person who answers my questions. She is put into her bath as a victim obliged to obey some irresistible dictate : she does not complain of being uncomfortable. When she had left it and came into my study where her sister was speaking with me about her, she seemed as if she could scarcely stand on her legs, and sat down, exclaiming, "That will never do ! I feel my old pains all over the body."

Mrs Q. came daily to take her bath. After three or four baths, she was a little more reconciled with them ; the sensation

she had experienced at first did not reappear. She was not conscious, however, that she was making progress; and when every day I was inquiring how she felt, she used to say, "Not better," notwithstanding she was improving. Her sister, who was watching her most closely, was telling her, "Oh! yes, dear, you are getting on: last night you slept better; you eat a little more at dinner; you walked in the morning with more ease;" and other remarks of the same kind. It was a fortnight before the patient would own she had made the least improvement, or, at least, she did not deny it. However, in answer to a letter of her husband's, she said that she believed she was making some little progress. Her husband came immediately to London, to ask my opinion, and if I really thought I could do some good for his wife. On my telling him that I thought she would be radically cured, he asked me how many baths it would require? I told him it was impossible to calculate in such a way, but that I supposed it would require about three months, perhaps a little less or a little more. It was agreed that she should continue the treatment. She went on improving slowly, but steadily, and passed through a series of phases of the most curious character. She had eruption, resembling almost every kind of eruptive fevers, from the miliary to the variola, at first of a distinct character—later several appeared on the body at the same time. The discharge from the womb was still going on, when I thought that, in order to submit the mucous membranes of this organ to the same influence as the surface of the body, it would be desirable to allow the liquid of the bath to penetrate inside. I had for this purpose a speculum made of perforated zinc, which was introduced into the vagina whilst she was in the bath. This contrivance had the desired effect. The discharge increased for a few days, then diminished, and ultimately entirely disappeared. Mrs Q. was progressing satisfactorily in every respect, when, one morning, her sister called on me in the

greatest desolation. It had happened that, the day before, a friend of Mrs Q. had called on her to ascertain if it were true she took those horrible baths ; that she had heard from a friend of hers, that a lady had taken these baths during nine or ten months, and died from their effects, in the most excruciating agony. The same evening she received a letter to the same purport from another of her friends.

It struck her mind that something must be true in these reports, and she at once made up her mind to discontinue the treatment. Her sister asked me if I could give her some reference from patients—some of the patients I had treated for diseases similar to her sister's? I gave her four—viz., two ladies in London, one in Liverpool, and a gentleman in Yorkshire.

The two ladies in London kindly took the trouble to call immediately on Mrs Q., and the lady and gentleman in the country answered by return. The confidence of Mrs Q. was soon restored, as no fellow-sufferer will ever deceive another, and the following day Mrs Q. made her appearance, quite satisfied that the reports she had heard were without foundation ; she continued the treatment, was perfectly cured, and had a most favourable confinement, as the following extracts from one of her letters and one of her brother-in-law prove.

“I have not forgotten my promise, my dear Doctor, of writing to let you know how I am getting on, but I thought it would be better to wait a few weeks. You will, I know, be pleased to hear I am well ; the change of air has done all you expected it would for me, and I cannot be too thankful I ever heard of your baths, and that you did not sanction my return home earlier. I am now daily expecting my confinement, which I hope, with God's blessing, to get over comfortably. I hope all your patients are going on well. No one need despair of a cure, after such a desperate case as mine.

“I remain, my dear Doctor,

“Sincerely yours.”

One month after, I received the following from her brother-in-law:—

“Oct. 14, 1858.

“DEAR SIR,—I am happy to inform you that Mrs ——— has been confined of a very strong and healthy child, a daughter, three weeks to-day. She is progressing remarkably well, and desires me, with kind regards, to acknowledge the astounding efficacy of your bath, and to attribute to it, with the help of a kind Providence, the issue of a very short and comfortable accouchement. With many thanks and kind remembrances,

“I am, dear Sir,

“Yours very truly.”

#### RATIONALE.

I have already stated that the object of the remarks annexed to the report of the cases is to spread some useful information. I think it right, therefore, to mention the following instance:

Mrs Q. was progressing towards the end of her treatment—I mean that the eruptions on the body were dying away—when a kind of boil appeared in the palm of the right hand, and proved rather troublesome, in consequence of the thickness of the tegument. Evidently there was a cause for this singular phenomenon, which I thought could be nothing but an accumulation of some poisonous substance. I asked her if she had ever frictioned any diseased person? She said, “No.” I told her, “It must be so, however; unless you have otherwise touched some poison: think of it.” She recollected then, that, a great many years ago, before she was married, she had frictioned her brother with some strong stuff; she did not know what, but she thought it could not be that, it was so long since. This idea is a very common mistaken notion of most patients, who suppose that their affection is always the result of a recent cause, and that past things have nothing to do with the present time. I wish to remove that false impression, because it is prejudicial in many circumstances.

Every one will admit, that if they put their shoes on a shelf or coat in a drawer, they will remain there as long as they are not removed : they will also agree that, although those things were quite new when so deposited, they will in course of time decay and rot, produce bad smells and putrefy, become diseased and cause diseases, generate insects, and so on, just in proportion to the time they have not been moved. If that fact cannot be denied, how can we rationally suppose, that where inert and poisonous matters have been introduced in the body, they do not remain as long as they have not been removed, and that they become the origin of affections which are just those we cannot account for? Some may observe that, in the living body, these matters behave differently; that they are moved by organic action, and, therefore, displaced from the first locality. This is true; and the worst of it is, because we do not know where they may be lodged. And this very fact explains why a disease or pain changes its seat, leaving a trace wherever it has sojourned, till the whole organism is disturbed and degenerated.

Now, the first point on which I want to call the attention of my readers is the absurd custom of prescribing the healthy to rub and friction the sick with acrid and poisonous substances, which, when applied with the hand on the skin of another, are absorbed by both parties,—nay, much more so by the person in health than by the patient himself, who is deprived of a portion of the medicament he wants, whilst the person who does not want it receives the baneful effects of the introduction into his system of the agent made use of.

Prudence and reason tell us, that unless the preparations employed are innocuous in their nature, and used merely for protecting the skin, and to facilitate the performance of shampooing, frictioning, or manipulating the human flesh, there should always be interposed between the skin of the patient and the hand of the operator some impermeable material. When I made an incision in the tumour Mrs Q. had in the hand, I did

not find a fibrous core, as in the simple boil, but a thick, dark yellowish matter. Who can know, if in course of time this matter would not have become the source of some inexplicable disease of the hand? Who can say if, as it was, that morbid matter has not contributed to the affection the patient was labouring under? We are fearfully made! and we must be very cautious not to introduce in the wonderful construction of our organism anything foreign to its ordained structure. In conclusion, this case is an irrevocable proof of the beneficial effects and astonishing power of the Electro-Chemical Bath as a therapeutic agent, since nothing else has been applied during the treatment.

Mrs Q. came to London a few months ago, accompanied by her sister, and paid me a visit. She was enjoying very good health, and had always done so ever since she had left off the treatment she followed under my care.

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### CASE XXXVII.

#### *Hypertrophy of the Heart.*

MONSIEUR G., forty-three years of age, sanguine temperament—middling stature, but strongly built—a French solicitor, living in Dublin, but coming occasionally to London, where he had to conduct a case in Chancery—met one day, in crossing to return to Ireland, with a dangerous storm; he was wet to the skin, and upset altogether in mind and body: he felt so ill, that in returning home he sent immediately for medical assistance, and was nearly two months in bed. He cannot give me any particulars on this disease, on the treatment he followed, as he does not speak or understand English. When he was out of danger, and considered cured, he became subject to very strong palpitations; suffocations; giddiness; had no appetite; digestion very bad, not being able



to retain his food; extreme prostration. He came to London in this sad state, and consulted a surgeon who spoke French, who, after a proper examination and auscultation, told him that he was labouring under an enlargement of the heart, so much developed that the valves could not close: he prescribed for him, and applied a large blister over the region of the heart. Having heard of me as a countryman, he came to inquire if my mode of treatment could do him good, and what it would produce. I told him that it would increase the general circulation; on which he exclaimed, "But, sir, I have been told that if the circulation was increased, it might cause sudden death; and I am particularly recommended to avoid anything which could stimulate in any way the activity of the heart." I explained to him that by increasing the general circulation all over the body, the heart would be relieved in proportion to the diffusion of the blood in the system. Whether he understood it or not, I cannot say; because these physiological questions are not easy to be comprehended by every one: at all events, he seemed satisfied. The next point was to know what would become of the blister on taking the bath. After having explained to him that I did not conceive the possibility that a blister could relieve the heart, I told him, "If your adviser has not been mistaken, the bath will make the blister discharge; otherwise the bath will make it heal rapidly." Such was the case after a few baths, when a vivid eruption appeared on the upper region of the chest and round the neck: it increased in surface, spread along the arms, and progressively gained the other parts of the body. After having taken two courses (twenty-four baths), Monsieur G. asked if he could not discontinue the treatment, the palpitation having entirely disappeared, as well as all the other symptoms: he ate well, slept well, could walk many miles without fatigue, and attend his business most comfortably. Still the eruption had not abated. I told him, that until the eruption should die away, he could not consider himself saved. He accordingly

continued the treatment, which was rather protracted, but without inconvenience or pain : the result was a perfect cure.

This is now four years ago. The gentleman, after his recovery, went to France to see his family, who were living amidst the mountains of the Jura ; he travelled from place to place on foot, was exposed to all the vicissitudes of the weather, without suffering the least inconvenience, and came back to London, where he is still residing. I have seen him many times, and he has been since in a perfect state of health.

#### RATIONALE.

Diseases of the heart are generally considered as incurable, particularly hypertrophy, which keeps life in a constant state of jeopardy. But, let us ask what an enlargement of the heart is, and what is the cause of it ? and we find that it is an over-nutrition of the viscus, which grows larger in consequence of the extra quantity of blood passing through it. When the blood arrives in too great a quantity for passing freely through the valve, its pressure within its walls causes a dilatation ; the contractions are more powerful ; and, as muscular contraction increases the development of the nutrition and development of the muscles, the heart is naturally increased in accordance with this physiological law. On the other hand ; as the mass of the blood is not greater at one time than at another, when a determination of blood takes place in some particular region of the organism, other places must, as a matter of course, be deficient ; the harmony of the circulation is deranged, and the patient is in danger. Now, is there any internal medicine, such as foxglove, or any of the other hyposthenising agents, able to restore the normal state of the circulation ? Is it rational to suppose that any drug which diminishes the action of the systemic circulation will act more forcibly on the heart than on the capillary system ? Those medicaments, in lessening the whole, keep the organism in the same abnormal condition, but on a lower ebb. The

vitality of the system is diminished altogether ; but the disease is not cured—and, in fact, such a treatment makes it incurable. Some persons will naturally ask, But by what means does the Electro-Chemical Bath prove to be such a wonderful curative agent in this case ? We answer, There is no wonder at all ; it is a simple and natural condition of its *modus operandi*. The electric fluid, in removing the extraneous substances which pervade the organism, relieves the capillary vessels of the pressure exerted by foreign matter ; they can then dilate and admit the quantum of blood they are destined to contain. The circle of the circulation from the centre to the periphery of the body is re-established, something like a cistern receiving constantly a flow of water, which should run in equal quantity by a certain number of pipes, would certainly never overflow ; but if the pipes were diminished in diameter, or some should be stopped up, then it is plain that the water of the cistern would run over. I was once told by a medical friend, that I looked on the human body as if it was a piece of machinery. “Yes,” I replied, “and the most perfect that the human mind can conceive, embracing all the phenomena on which are founded and framed what we call special sciences. Are not the blood and other fluids of the body submitted to the same laws, demonstrated in the sciences of hydraulics, hydrostatics, optics, chemistry, thermostatics, mechanics, &c. ? If, then, what we know in positive knowledge and science are nothing else but natural laws and phenomena existing in living bodies, how could we rationally decline their *modus operandi* there ! where we have discovered them, and use in practice the means which can promote their natural action, in accordance with the principles from which they are derived ?”

I feel I must stop here in my digression ; it is but a very cursory sketch—sufficient, I trust, to explain the effect of the bath in the case under consideration. The fact that the patient has been radically cured of a disease considered as incurable by

any other means, will bear me out in the proposition I have advanced.

The following case will present similar deductions, although in circumstances quite different.

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### CASE XXXVIII.

#### *Case of a Supposed Disease of the Heart.*

D., aged forty-eight, height six feet one inch; sanguino-nervous temperament, brick-burner by trade, called on me at Manchester, complaining of a disease of the heart, for which during four years past he had been under treatment at the Infirmary and several Dispensaries in the town, besides having been attended by several medical gentlemen. The diagnosis had been considered by every one as a disease of the heart. It was in the winter season he came to consult me; he was well clad, with a thick overcoat over his other garments. The beating of the heart was so violent, that its pulsations could be seen through the thickness of all his clothes. I desired him to strip, in order to make an examination of his body. When he had removed his neck-tie, I found the carotides working like the pistons of an engine on each side of the neck, with incomprehensible force. When undressed, the body presented a contracted chest; a considerable stooping of the body; the ribs falling down, and forming an angle of about seventy degrees, with a great rigidity of the articulating processes; a shortening of the anterior portion of the thoracic cavity; the diaphragm was carried down, the abdomen receding, the body emaciated. He complained, besides the palpitation, of not being able to retain food on his stomach; of dizziness of the eyes; constant giddiness in the head; no sleep, and a general prostration. The respiration was ample, strong, and long, but what is called diaphragmatic—i. e., instead of the chest expanding, the abdomen pro-

truded, in order to make room for the inspiration of the air. He could not account for the cause of his affection, he being a temperate and steady man, and not having been previously subject to any characteristic disease. On my having inquired as to the nature of his occupation, he told me that his business consisted in taking a row of bricks from the ground and lifting it up on the kiln; that being very strong and tall, he used to take a great many bricks at a time, and do almost twice as much work as another, and that he earned a good bit of money.

From his description, I drew the following physiological deductions: viz., in order to lay hold of the bricks on the ground, the man was obliged to stoop, in which position the chest was contracted and shortened, the ribs lowered, and the whole cavity of the thorax diminished: when rising with a great weight, he was obliged to draw in his breath, as is always the case when we lift a heavy burthen; that in such an occurrence, the lungs being inflated forcibly, they acquire strength and increase in volume, and that, therefore, the osseous cage of the chest being diminished in size, and the lungs increased in bulk, there was not room enough left for the free action of the heart.

I had him placed on a couch, lying on his back, and the head thrown backwards, whilst two assistants took hold of one arm each, raising them so as to produce a movement of reversion backwards, and thus to raise the ribs. I told him to breathe at the same time deeply; and whilst he was taking a large inspiration, I passed along the sides of the chest, on the respiratory muscles, a current of galvanic electricity: this was repeated daily. The object I had in view was to re-establish the size of the cavity of the chest, and to restore the motion and suppleness of the articulating process of the ribs: this was partly obtained by the first operation. When he came the sixth day, I asked him, "Well, Doyle, how are you getting on?"—"Pretty well, sir," he answered. "And the palpitation?"—"Oh! sir, it is gone."—"How does the stomach?"—"I can enjoy a chop."—"And the eyes?"—"I see pretty clearly."—"And the giddiness?"—"I do not feel

it."—"Then what have you to complain of now?"—"Nothing, sir, but weakness." The operation was repeated two or three times more; I prescribed plenty of proper exercise and appropriate diet; and in eight or nine days the man was cured of a disease considered incurable, after four years of useless treatment.

#### RATIONALE.

This case, which at first sight, presents the same symptoms as the preceding one, and which, according to all probability, had been previously medically treated by the same means, offers matter for reflection, and here corroborates what I have stated in the foregoing case,—viz., that we must take into consideration the working of the human machine, and observe carefully how the physiological laws of the organism may be deranged, and alter the mechanical action and performance of certain functions. The affection of Doyle was not a disease of the heart, although he had been treated for it: it was a mere want of room, caused, on the one hand, by the diminution of the thoracic cavity, and an increase of the bulk of the lungs. The heart was sound, but had not sufficient room for its dilatation.

This case proves the erroneous prevailing notion of making the diagnostic of diseases on the mere statement of patients, or appearances of internal symptoms. If, as I do myself, it was the practice to consider the external envelope of the body as its mould, in which the internal organs are, so to speak, cast, and corresponding inside to the external form, we should come to the conclusion I arrived at in the present case. I know it is sometimes done in affections of the chest, with the instrument called plessimeter, to ascertain by percussion the internal sound of some organs, and also by measuring externally the dimensions of the chest and its form. But this is practised in particular cases, and confined to certain organs. Why not apply this principle of comparison to the general appearance of the

body, in order to ascertain if the due and correct proportion exists everywhere, so as to be able to correct and modify the frame when its defection becomes the cause of internal disease, which cannot be cured unless the containing part has room enough for the contents? For example, if consumption is the result of the contraction of the cavity of the chest, it is evident that there is no possible cure unless this cavity is restored to its proper size; in which case, gymnastic exercises adapted rationally will prove more beneficial than all the pectorals and balsams of the world, as Nature cures herself when we have removed the obstacles which interfere with the natural functions.

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## P A R A L Y S I S.

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### CASE XXXIX.

*Hemiplegia of the Right Side, including the Ear and Tongue.*

MR A., aged fifty-eight, married, nervo-bilious temperament—short stature, but in due proportion—book-keeper in one of the principal firms in Manchester—was brought to me by his wife, who told me, as he could not speak, that a month before he had been suddenly taken with an attack of paralysis, and that the medical man she had consulted advised her to call on me.

The patient is unable to perform any movement with the limbs of the right side; his wife is obliged to feed him, to dress him, and to attend to him in every way. He is deaf in the right ear; half the tongue on the same side is paralysed: not only he cannot speak, but he has a great difficulty in eating and swallowing. However, his appetite is pretty good, and the functions of the bowels and bladder are unimpaired.

I proceeded at once, with an electro-magnetic apparatus (single coil) of little intensity, to pass an electric current from

the good ear to the bad one, changing alternately the positive pole from the ear to the medulla oblongata, behind the head.

At the end of the sitting, which lasted about half an hour, including some intervals for repose, the hearing was partly restored.

The next day, his wife stated that she had found a great improvement from the previous day. The same operation was repeated a few times, when, on my inquiring, he made a sign that he heard very well.

Next I proceeded to the electrification of the tongue. I had provided for the purpose a small disk of silver, with a handle of the same metal, well covered with silk thread in order not to electrify the teeth. I applied this little instrument, to which was connected the negative pole, to the sublingual nerves, and the positive conductor on the medulla oblongata, at the basis of the small brain, behind the head, from which the nerves of the tongue take their origin. This application caused a great secretion of saliva, which ran out of the mouth in great quantity. In order to relieve the patient for a moment, I withdrew the disk from his mouth, and asked him if he could tell what he had felt. I expected that he would express himself with some sign as he did before, when, to my surprise, he told me, with a full voice, "I felt it very comfortable." His wife, who still accompanied him, rose her arms up with astonishment, exclaiming, "You speak!" when, coolly and composedly, he said, "Certainly I do."

In fact, he had at once recovered his speech.

I continued the following days to apply electricity with a double coil from the upper part of the spine to the arm and hand, and subsequently from the lumbar region of the spine and the sciatic nerve to the lower extremities.

In ten days the patient was restored, and resumed his employment, being able to write and attend to his business as well as he ever did before.



## RATIONALE.

There is nothing more common now-a-days than to see the large, conspicuous plates of medical electricians everywhere in London and provincial towns. It seems that it is sufficient that a man can make an electro-magnet work, to be a medical electrician. I have been told that a gentleman who had acquired some years ago a kind of reputation in London, had a servant who was in the habit of preparing and connecting his battery ready for use. It came one day into his mind that it would be more agreeable to be a master than a servant ; he accordingly bought an electric apparatus, and he became the competitor of his master in a few days, offering the great advantage to the public of charging half the price his master did.

While in Manchester, I was told by a man I employed for errands, and who had before followed the perambulations of a medical electrician, travelling from town to town to give lectures and apply electricity, that, one day, the gentleman was to give a lecture at an inn, when it happened that this gentleman, formerly a respectable member of the Teetotallers' Association, was so very drunk that he was obliged to disappoint the audience who had congregated, at twopence per head. He charged his assistant to apologise for him by pleading a sudden indisposition, and to say that any one who might require his services might call the next morning, and that he would operate on them. A man called, complaining of numbness in the arms, with difficulty to use his hands. The master had not recovered as yet from his indisposition of the previous night ; but his assistant knew how to work the electric apparatus, and so he did. He put the conductors in the hands of the patient, who grasped them with more power than he wished, as he could not let them go : he cried out, "Too strong !" The assistant went to diminish the power, but, not knowing how, he increased it, till the patient was almost convulsed ; he was purple in the

face, and the blood-vessels were protruding all along the arms ; when the worthy assistant, feeling rather uneasy, broke the contact : the patient was cured, but he said he would never again submit to an electric treatment. I have this from the very man who was the operator in this circumstance ; he could not relate this great success of his without splitting his sides with laughter.

Many of these pretenders have written pamphlets on the subject, proving to the man of knowledge that they are grossly ignorant of what they profess.

I could give the names of many who have impudently published them ; but every one must live from something : I only want, on the one hand, to warn the public against such imposition ; while, on the other, I wish it to be well understood that if electricity fails in some instances to fulfil the expectation of the patient, it ought to be attributed to the inconsistent manner in which it is applied, rather than to the deficiency of this universal agent.

#### CASE XL.

*Paraplegia or Paralysis of the Lower Extremities, with  
Anæsthesia of the Legs and Feet.*

MR C., aged forty-four years, married—an independent gentleman, descendant of a noble family—of a rather tall but light structure, nervo-sanguine temperament—has been labouring for twenty years past under paralysis of the legs, and insensibility of the skin of the lower portion of the legs and feet. He does not feel the ground on which he stands ; and if he does not look at his feet, he immediately loses his equilibrium and falls down. If, while sitting, he shuts his eyes, and you put his feet in various positions and different places, he cannot tell

where they are. He is subject to constant acute pains, which, however, do not prevent him from walking a short distance with the help of sticks.

Having met that gentleman by chance at my chemist's, we came, in the course of conversation, to speak of electricity. He asked me if it was good in paralysis? Having one copy of my treatise with me, I offered it to him, and invited him to visit my establishment, which he did in the course of a few days.

He first inquired what length of time the patient remained in the bath? I told him, one hour. He then asked me, what temperature? I told him, from 96 to 100. The next inquiry was, how often it was requisite to take the bath? I answered, daily. "Well, my dear sir," he exclaimed, "it is useless to try. You must know, that after having taken a couple of tepid baths of only a quarter of an hour each, in one week, I was quite knocked up."

However, having expostulated with him on the different effects of plain baths and the Electro-Chemical Bath, I told him that he was not compelled to remain longer than he might feel inclined: he resolved to try.

My being able to spare the time, I went to keep him company. That gentleman being an amateur artist, a scientific gentleman, a great traveller, speaking French like a native, we had a long conversation on various subjects. When the bath attendant came with the bath-clothes, "What is that?" he said. "Your clothes, sir."—"The clothes!" he replied. "I have not been here one hour!"—"I beg your pardon," said the attendant; "a little more."—"I feel as if I could remain an hour more!" he ejaculated. The battle was gained at once.

On leaving, he remarked that he had not felt the pain he was subject to.

This gentleman came daily from a distance of fourteen miles; and although it took him almost half a day, he was most

punctual. He had profuse cutaneous elimination, but had scarcely any eruption, although there were great deposits of calomel and occasionally some spots of mercury on the copper.

He progressed slowly, but steadily, gaining strength every day. He began to walk with more ease and firmness; next he was able to kneel down and get up without assistance, and ultimately to walk forty or fifty paces on the lawn of his garden with his eyes shut. He was able now to attend business, and accepted to be the manager of a company. I have met him several times in London, when he had not lost anything of what he had gained under my treatment, which he followed regularly during about three months, after which he came only occasionally.

#### RATIONALE.

I need not say that during twenty years that gentleman had followed various treatments, and that none had proved available. For three or four years before he came to me, he had become resigned to his fate, spending, as he said, his money for nothing, whilst, through his infirmity, he was prevented from making up for his extra expenses by making use of his talents. This patient has not taken any medicines while under my treatment, and had only local electricity applied on the part of the legs and on the feet where the sense of touch was entirely destroyed; and I am authorised to believe that if I had had at that time in my possession the various contrivances I have invented since for the appliance of local electricity in the bath, his cure would have been much more rapid.

I must mention that Mr C. could not account for the origin of his affection. It came on slowly, and may therefore be ranged within the category of what is called progressive paralysis; a kind of affection which generally proves very obstinate, giving way in the same manner in which it comes on—viz., very slowly.

## CASE XLI.

*Case of Hemiplegia of Three Years and Nine Months cured in Eleven Days.*

MR D., aged seventy-one years, married, with a large family, engineer and manufacturer ; has a firm in London, where he occupies some hundreds of workmen. Has had a paralytic attack three years and nine months before coming to me.

I have known him for twenty and odd years, having been introduced to him a short time after my arrival in London. I have seen his family grow up ; his eldest son being one of my intimate friends, he warmly advised his father to come to me immediately after his accident ; but his wife and daughters were afraid that my mode of treatment, with which they were entirely unacquainted, might prove dangerous, and they prevailed upon him not to try it. I had not seen Mr D. for many years, in consequence of my having resided in Manchester, when it happened that his second son, feeling rather unwell, called for the purpose of taking a few baths. After the third, I was in his room, when all at once he exclaimed, "What stupid nonsense !" "What nonsense ?" said I. "Well, do you understand, the folly of my father, who is afraid to take your bath, because my mother and sister tell him that it is painful and dangerous. I will go to dine with him to-day, and tell him that he must come ; that I have tried your baths myself, and that they are most comfortable and without danger." He went accordingly ; found his father in the drawing-room, and began to speak on the subject ; when his father stopped him : "Don't speak of that before your mother ; we shall talk it over when we are alone."

Two days after, Mr D. came on the sly, unknown to his family, and continued during some days without telling his secret. He had improved from the first day, and his progress was so rapid that it became an object of uneasiness for his

family: he was walking so much better, getting up the steps of the garden without assistance; could enter into the omnibus without being pushed in by the conductor, whilst, as usual, the indoor passengers dragged him from within. It was then that he thought to be safe to confess his doings, and the secret was then revealed to the satisfaction of the whole family. After the second bath, Mr D. was able to sign his name, not without some difficulty, but he had not been able to hold a pen for nearly four years.

This gentleman had taken a course of twelve baths, but after the eleventh he was quite cured. He went out with his cane under his arm, walking with ease and perfectly erect.

This was in December: his partner had been taken ill, and Mr D. was able to control the books, and to inspect the accounts of the end of the year.

#### RATIONALE.

It is not many years ago, that paralytic fits were considered as incurable: a great many still believe it. Why was this opinion so much accredited? Because the healing art had not any resource to oppose to this horrid affection; all those which had been tried having failed.

The patient alluded to had also tried several things, as those generally used, strychnine and some other poisons, all substances which have the contrary virtues of those which should be employed. Every one knows that poison kills, if taken in certain quantity: if in small doses it does not destroy life, it still acts as a destroyer in diminishing the vitality. It is thus that in inflammation or super-excitation they may be employed, with advantage, to reduce and bring to its normal standard the organism or the organ, when they are above their natural rhythm. But, as paralysis is a diminution of the action and power of the nerves, it must be evident that such remedies must be more prejudicial than useful: and this is proved by the

very fact that those medicaments do not cure paralysis ; and this fact is at once acknowledged by the Medical Profession, inasmuch as they consider paralysis as incurable.

In paralytic affections, we have to restore the vitality of the nervous system, on which all the functions of the body depend. But how is it possible to reach at once the nerves by internal medicine ? It cannot be done but through the circulation—a long and inefficacious process, as the circulation goes all over the body, and as it is impossible to concentrate its action on any particular part of the system ; whilst electricity may be confined to the spot where it is required, the nerves being the natural conductors of electricity. In applying this element, it goes at once through its natural channels ; it restores their vitality, since it promotes their functions. Function is life, since, for want of the performance of the functions, life is extinguished. Electricity, therefore, is a life-supporter.

The above remarks, which cannot be denied, explain how electricity supersedes other means, not only in paralysis, but in every case. This universal and powerful agent, coming ready-made from Nature's own hands, or generated and manufactured by Nature's rules and dictates, cannot be at fault. If it fails in the hands of many, it is on account of the irrational way it is applied, and when the kind of electricity employed is not adaptable to the case. Notwithstanding the numerous circumstances in which electricity has proved so successful, it is believed still that its beneficial effect is not to be expected after a certain age. The present case proves evidently that it is an erroneous idea, the patient being seventy-one years old, and having been cured in eleven days, I may say, in eleven hours' treatment.

## CASE XLII.—JULY 21, 1859.

*Paralytic Fit, terminating in complete Hemiplegia of the Right Side, cured in Nine Days.*

MRS ARMAND, aged fifty-six, sanguine temperament; has had a numerous family; she is a well-made, robust lady, not appearing her age; never had any complaint in her life but those of infancy and childbirth. Mr and Mrs A. are old friends of mine, as well as of Fechter, who has been since his infancy on intimate terms of friendship with Mr A.'s family.

Fechter and I were invited to a family party, which was spent in happiness and merriment. Mrs A. was in perfect good spirits, enjoying in all its plenitude the general delight of the evening. We retired about twelve o'clock, and Mrs A. went to bed in perfect health, slept well, and got up the next morning as well as usual; but, a short time after her husband had gone from home, she suddenly fell down with a scream. She was then alone in the dining-room. On hearing the noise, one of her daughters rushed to her assistance, and found her lying on her face and speechless. On taking her up, her face was distorted, and she could not help herself in any way. She was paralysed on the whole of the right side, including even the tongue.

A medical man was sent for immediately, who prognosticated that the paralysis would gradually seize the other side also, and gave but scanty hope of a favourable issue. Considering her time of life, he thought that there was danger of the brain becoming involved and softened, and that the case would then terminate fatally.

He prescribed strychnia pills.

The enjoyment and pleasures of the previous day had thus at so short a lapse of time changed to a scene of desolation and



despair ; and when Mr A. returned home in the evening, he found his family in the greatest state of consternation. He called on me the next morning early, his mind terrified by the prognostics of the doctor who had been consulted. I, however, calmed his apprehensions, and promised him a result different from the one he so much feared. I told him I would call in the evening, and take with me the requisites. Fechter came with me, being as anxious as I was myself to see the patient relieved. I took with me an electro-magnet apparatus ; and after operating for about half an hour, I caused her to move her arms so as to be able to raise her hand up to her mouth. I left her comfortable, easy in mind, and full of hope as to her recovery.

She was brought the next morning to my establishment. She was dreading the bath : this, however, wore off. On being in a short time, a cutaneous elimination appeared, to her great astonishment, rising in the form of a white cloud when scraped with the spatula, to the surprise of her daughter, who was able to see it forming on the skin, and struck both with wonder and gave them confidence.

Local electricity with the electro-magnetic coil was, besides, applied to the arm and along the sciatic nerve with a favourable result : the copper bath was slightly discolored.

July 22.—Repeated the same treatment ; the sensibility is increased, and the patient finds the local electricity more painful. Elimination and discolorations as yesterday ; a little additional improvement to that obtained the previous days.

July 23.—Same treatment ; same result.

July 25.—The patient has been improving naturally since the last bath : she is able to hold a tea-spoon between the thumb and fingers ; the lower extremity is progressing in a similar proportion, and is made to move pretty freely under the electro-muscular action of the machine.

July 26.—Now able to hold firmly a spoon in the hand and carry it to the mouth ; can stand on the leg, when held up

under the arms. Cutaneous elimination as usual; very slight deposits may be observed of arsenic, calomel, lead, and iron.

July 27.—Able to speak more distinctly, and to walk, with help, from the bath-room to the cab. The general health improved in every way: good appetite; sleeps well; all functions regular. Being obliged to increase the intensity of the local electricity in order to obtain a greater action, the patient feels it very acutely, begging I would diminish it, or even to do without it. Her fear and emotion, even before being touched, prevent me from reaching the parts affected as I could wish.

July 29.—Has omitted a day; she is able now to move in the house, improving naturally. She had used with advantage the frictions I had prescribed.

July 30.—Getting stronger and firmer on the leg; she has entirely recovered the use of the tongue, and is improving in every respect. Repeated the same mode of treatment.

August 2.—Has omitted two days, feeling she was going on favourably, and also, I suppose, because she dreads the local application. After having taken her last bath, she was able to walk, with a little assistance, from my establishment, York place, to the corner of Orchard street, Oxford street.

August 4.—Same treatment repeated once more this day. On leaving, she is under the impression that she can discontinue the treatment, feeling well in every respect, and able to attend to her domestic affairs without either pain or inconvenience.

Having seen this lady many times since, she assured me she was quite recovered. It is now two years since, and she has continued, without interruption or any kind of relapse, in perfect health.

#### RATIONALE.

This case, as it may be observed, differs entirely from most of the others, as presenting scarcely any of the deposits found

in such large quantities in other cases. Here we have only noticed a few slight traces of arsenic, calomel, lead, and iodine. Perhaps the enquirer will ask why it is that there are any at all? We answer, that arsenic is very often found in pretty large quantity as a deposit, although the patient has never taken it medicinally. Those persons who are in the habit of eating a great deal of mutton always emit more or less of that poison, owing to the practice of farmers, of plunging the sheep in a bath prepared with an arsenical solution, for the purpose of getting rid of the vermin they are subject to, and thereby to preserve their wool: during that operation, arsenic is absorbed through the skin, and more or less into the flesh, where it remains deposited when the animal is killed, and is swallowed when the meat is eaten. With regard to calomel, it is almost impossible to escape taking it, either in antibilious pills or other form, that drug being given for the most trivial indisposition.

Lead comes from the kitchen utensils and the adulteration of food,\* as well as iodine, which also, taken in very minute quantity, accumulates in course of time.

With regard to the primary cause of the case under consideration, it is the result of determination of blood to the head, which, by its pressure on the brain, prevents the nervous fluids, so called, from being transmitted to the part affected. The patient was a strong, vigorous woman, of sanguine temperament: under the effect of excitement, the blood rushed to the head. This simple fact gives in a few words the history of the case. I have already stated that formerly this kind of affection was deemed at once incurable; it is still believed to be so by some, as is proved by the prognostic of the medical gentleman who had first been consulted.

But here we have the proof that such an opinion is

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\* See Dr Hassall's work on 'Adulteration of Food.'

erroneous, and that, when attended to in good time, paralysis may be soon removed without a grain of medicine.

I have in this case mentioned again the name of my friend Fechter. It will be understood that by doing so my object is to bring forth a witness of the particulars of the case, he having followed it from the commencement to the end.

As being connected with the above case, I may relate that the husband of this lady, a gentleman of sixty-two years, of plethoric constitution, has been subject for many years to a determination of blood to the head, when he used to fall suddenly on the floor in a state of insensibility, from which he used to recover almost immediately, leaving no trace of it. It happened, one day he was with me, that he complained of a weight in the head: his face was flushed. I told him to get immediately into a bath; but he demurred, being afraid it might make him worse. He went out to breathe the fresh air, thinking it would relieve him; but he returned shortly, worse than before. I ordered a bath, and insisted on his getting in, which he did: he had scarcely been a few minutes in it, when he got relieved, and was perfectly well when he came out of it. Ever since that time, nearly two years, he has not been subject to that indisposition.

This fact is not only interesting, but becomes of paramount importance, as proving that the bath is an effective preventive of the grave accidents which arise from a predisposition of a determination of blood to the head. I may state again, respecting the same gentleman, that many years ago he called on me, suffering most acutely from the ear-ache, resulting from a draught he had been exposed to the day before. I offered to cure him at once, which was done immediately by throwing into the auditory canal some atmospheric electricity.

I mention this trifling circumstance to prove that this kind of electricity is, as well as the others, a medical agent. By the

same means, I have many times instantaneously removed recent congestion of blood in the eyes; a result which cannot be obtained by any other means whatever.

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### CASE XLIII.

#### *Consecutive Paralysis, with Muscular Atrophy and Degeneration of the Fibres.*

MISS P., thirty-four years of age, nervo-bilious temperament, began twelve years ago to lose her strength without any apparent cause, and to feel debilitated and in a state of prostration. She had medical advice, but did not know what kind of medicine she had taken: notwithstanding, her weakness progressively increased, the vital functions diminished, and pain insensibly crept on; when, five years ago, she lost the use of her limbs, her sufferings became intolerable, and she was compelled to take to her bed, unable even to feed herself. She tried all sorts of treatment, not only without benefit, but getting worse, when she resolved not to try anything else. However, a friend of hers, who had heard of a desperate case cured by the Electro-Chemical Baths, urged her to try them as a last resource. She was at first unwilling to consent to it, but some other friends and relatives joined together and succeeded in persuading her to make the trial. Thus forced by their admonitions, she reluctantly gave way, in compliance with their wishes; but, without either confidence or hope of ever gaining any relief, she came to London. To my questions she answered with the greatest indifference, smiling ironically when I was explaining to her on what ground was based my belief of being able to do her good. She candidly told me that she did not think she could ever improve.

The general health was quite deteriorated; she could not use

her hands or fingers, which were distorted and thrown outwards in consequence of rheumatismal concretions between the articulation of the metacarpal bones and the first phalanxes; the finger-joints were so stiff that she could not grasp anything—she had for a time given up playing on the pianoforte; the knees were very weak—she could not walk, but almost on tip-toe and by jerks, when supported by a person on each side, in consequence of the retraction of tendons which connect the heel-bone with the posterior muscles of the legs.

She took three baths without being able to detect any change in her feelings; after the fourth, she found her appetite a little better, as well as her sleep.

After thirteen baths, during which time large deposits of mercury were found at the bottom of the bath, as well as arsenic, with antimony, iodide of potassium, iron, on the side and all round the tub. She confessed that there was something in the taking of the bath that was very astonishing, that she felt she was improving.

Till then, Miss P. would not permit me to go to her bath-room, she even avoided meeting me as much as she could, so that I had not had the opportunity to judge myself of the condition of the body. She was now sufficiently prepared to try local applications, and having gained confidence, she consented to it. I then had the opportunity to make an examination of the body, which I found in a frightfully emaciated condition (bones and skin); the muscles of the thighs were atrophied, accounting thereby for the weakness of the knees; the ankles were cedematous and tumefied. I proceeded to apply the local application with an electro-magnet apparatus whilst she was lying in the bath, and began by the fingers, as this was, according to her opinion, the worst of her deprivations. I made them move at once in various directions, to her great astonishment and delight.

Now Miss P. was perfectly at home, and willing to let me

do whatever I thought proper. She could not bend her arm, nor raise it up. I had not yet been able to ascertain the cause, Miss P. keeping herself wrapped up in the bath-cover as much as she could. When I saw the upper part of the arm, I found a deep indentation in the upper region of the biceps muscle, and a fatty degeneration of the fibres ; so much so, that the bone felt as if there was no muscle over it. The muscles of the shoulder and those connecting them with the neck were almost in the same condition, so that voluntary contraction was quite impossible. The case was worse than I had anticipated, and I almost despaired of succeeding in restoring the action of the right arm : I tried, however, with perseverance, and had the gratification, after a few applications, of obtaining a slight contraction, and in a comparatively short time my patient was able to raise her arm, to do her hair and to feed herself. After having restored the upper extremities, I proceeded along the spine, which I found much distorted, then to the muscles of the thighs and lower extremities. Each day brought on an improvement, and after thirty-six days' treatment, Miss P. being most anxious to return home, asked me to let her go, and promised to come back immediately in case she should not continue well : she was able then to dress her hair without assistance, to play on the piano, to use her needle, and to walk two or three miles without inconvenience ; her appetite was good ; she slept well ; all the functions were regular, and her strength daily increasing.

Now Nature has recovered her wonted power, the cause of the affection is eradicated ; the patient is able to take exercise ; and as Nature cures herself when there is no obstacle to her functions, it is to be expected that the cure will be perfect.

#### RATIONALE.

This case is one of those which gave me the greatest anxiety, each step in the treatment presenting some unex-

pected difficulty. It is almost impossible to meet with a frame so deteriorated in every way as was this patient's: she was convinced of it, and I understood, when I saw the extent of the evil, the kind of sneer she showed me when I was speaking of restoring her. She had certainly a right to consider it as a great presumption on my part; and had I known the case to be as I found it afterwards, I would certainly not have spoken so affirmatively.

It is not very long since, that fatty degeneration of the muscles was demonstrated and was at once considered as irremediable. We are indebted to Dr Duchesne de Boulogne for the best description of this disease, and the means of curing it by electricity.

If we want a common illustration of fatty degeneration in animals, every one can notice it, at Christmas, in the shops of pork-butchers, when a leg of pork of ten or twelve pounds has only half a pound of flesh. By seeing the animal alive, it is found that it can neither walk nor even stand on its legs, and is lying down with its snout on the trough, having no power of motion, because it has no muscles. In human beings emaciated by sufferings, and unable to take sufficient food, we do not find bulk; but the muscular fibres are absorbed, and their substance transformed into fatty matter—viz., without fibres. When the body contains a great deal of adipose matter (fat), it may be transformed by bodily exercise into muscular tissue. I happened, when in Manchester, to have for a patient a young lady, eighteen years of age, very stout and very weak: in three months she lost 16 pounds in weight, and gained strength in proportion as she diminished in size.

If these phenomena are the result of physiological laws, why not take advantage of them in medical practice?

I had in hand, in the present case, a weak patient who could not take bodily exercise, not even move her arm; but as muscular exercise causes muscular development, which is nothing else but



muscular contraction, in causing contraction by the application of electricity I exercised the part, and thereby developed it.

I mention these particulars because they are facts. These reports may appear either marvellous, or even impossible, whilst, in fact, they are but the physiological laws of the organism. I want to impress these facts on the mind of the reader. In the case on record, however surprising and perhaps supernatural it may appear to the eyes of the uninitiated, it is the work of Nature, and no more. I have advanced it before, and the details I give have for their object but to prove the possibility and reality of what I have advanced.

In conclusion, during the time the patient was with me she has not taken any medicine ; her cure has been altogether due to the natural work of Nature, promoted by the action of electricity.

#### CASE XLIV.

##### *Case of Progressive Paralysis.*

MONSIEUR LE VICOMTE DE D., aged thirty-seven, single, was one of the patients forming the caravan spoken of in Monsieur Fechter's letter printed in *Le Courrier de l'Europe*. He had, when younger, lived a fast life, as young noblemen are often liable to do, and had retired to his country-house to escape temptations : he was then in good health, and in the full enjoyment of all his faculties. I need not say that he is a man of education ; but, in addition to his acquirements, he has an inexhaustible amount of wit, which made it more difficult for him to withdraw from a circle of friends who enjoyed his company. After he had been for some time in this retreat, his friends there noticed a kind of awkwardness in his gait, without he himself being aware of it : he had no pain whatever, and still he was getting worse in his carriage. He went on in the same way

for some time, when he began to find some inconvenience in his legs in riding on horseback ; this increased very slowly, until he was at length obliged to give up this enjoyment. In the course of time, he was obliged to have recourse to a walking-stick, and later to have two : still he had no pain, but his strength was progressively failing. He came to Paris to have medical advice, and consulted many of the first medical men, who prescribed for him. But he got worse under their treatment ; the vital functions became impaired, and he became a perfect invalid.

From the beginning of his affection till the time he came to me, five years had elapsed without finding any means to stop this affliction : he has now lost all his strength, and he is reduced to the greatest state of emaciation. He cannot cross the room, supported by two sticks, without dragging his legs, over which he has no command ; and in spite of his supports and every care, he is constantly falling down. His body is covered with bruises all over, but cause him no pain. His falls are for him an object of merriment ; he remains on the spot where he falls, laughing at his incapacity in getting up. All sense of feeling is departed from the feet ; he merrily quotes an instance : A few days before his coming to England, being seated in the drawing-room, conversing with some friends, he was surprised at receiving the humble apologies of a gentleman, who expressed his great regret for the pain he must have caused him by unknowingly placing the leg of the chair on his foot and sitting on it ! The poor Vicomte had not felt it.

During the crossing over to England, he was very ill. Arrived at Folkestone, Fechter was obliged to have him carried to the hotel, where he fainted and had a fit of shivering, from which he could not recover for a long time ; in consequence of which, the two travellers missed the train, and instead of arriving at nine o'clock in the evening, they made their appearance in the middle of the night.

I was very much struck with the countenance of my new patient. He is extremely pallid; you may, through his cheeks, trace all the bones of his face: he has large eyes, and a large mouth; his head has a peculiar shape altogether—it is very long, and the posterior part extremely predominant. This particular conformation gave me at once the key to the origin of his affection, which proved to be true—viz., to have been too great an admirer of the fair sex. He had, for the sake of convenience, his hair cut very short; a circumstance which allowed me at once to investigate his phrenological tendencies. Notwithstanding this state of extraordinary debility, his intellectual capacities shone in his eyes and the general expression of his countenance.

The next morning we began the treatment, which at first consisted in the taking of the bath only. The cutaneous elimination was considerable: deposits of calomel covered the bottom of the bath, and round the sides, in a pyramidal form: around the top, strata of iron, iodine, iodide of potassium, &c., were deeply deposited.

The patient made rapid progress with regard to his general health. The functions were good, the appetite fair; digested well, and slept well.

Local application was then applied to the lower limbs: as soon as the patient could stand, appropriate exercise was employed, such as the arm-chair treadle: when the patient was comfortably seated, the feet were strapped on a moveable apparatus supplied with weights, and the motion of walking performed while the patient was seated. Frictions also were employed. The progress was slow, but steady: the patient got first more command and strength in the legs; was not subject to fall, stood more upright, and able to get up without assistance and to walk in the room; next he could walk with a single stick, then go up and down the stairs, and soon he became able to take a walk out of doors; he made flesh, looked and felt well.

He could now go about the establishment without a stick. He went on improving, when it happened that Fechter took an apartment, where he went to live with him, they being intimate friends of old date.

The Vicomte began to rather neglect the treatment. I had told him that I should consider him cured when he would be able to run, but he was obliged to return to Paris before my expectation could be realised. However, previous to leaving he was in the habit of taking pretty long walks by himself. One day he went with Fechter for a walk: they started from York street; they went round Hyde park to Kensington gardens, came back along Oxford street as far as the Princess's Theatre, and from thence home; having been all the time on his legs, and without any ill effects or inconvenience.

The Vicomte de D. was with me from the 18th of April to the 1st of August—viz., three months and a half,—and was so restored that he used to walk without the assistance of his stick, and that the little awkwardness of his gait could scarcely be detected in the street by strangers.

I have heard about him many times, Fechter seeing him every day when in Paris: he has not lost anything of what he had gained while under my treatment, and he is still in perfect health.

#### RATIONALE.

Of all the diseases I have treated, I have not found any so stubborn as progressive paralysis. It comes on so insidiously, that the patient is not aware of it; and when you question him about the primary cause of his affection, he tells you candidly that it came on without cause. I need not say that there is no effect without a cause; every one knows it. If the cause is not tangible, then it is hidden; but there it is, as a matter of course.

We find the sequence in the derangement of the nervous system; but what is the cause of this derangement? Necessarily,

the violation of Nature's laws. Those violations often occur through the ignorance of the patient ; have not been noticed or detected ; or if they have, he does not wish to relate them, and it seems to be a mysterious and unfathomable occurrence.

For the uninitiated in the science of physiology, I shall say that the nervous system presides over all the vital functions, and that the brain is the root or fountain-head of the nervous system. If, therefore, the brain is affected—and it may be so in various ways—its derangement may be transmitted through the nerves to the whole organism, which becomes all deranged ; or, through adventitious circumstances, the evil may be communicated to some particular organ. If the nervous system supplies the wants of every part of the animal economy, when it happens that more of its fluid is drawn off than it can supply, the nervous system, and even the cerebral functions, may be exhausted : thus, in youth, self-abuse can ruin the system, and leave indelible traces for a whole life. In the adult, the abuse of sexual intercourse will produce the same results ; excesses of every kind will produce similar effects—viz., the ruin of the constitution. Thus do we see in progressive paralysis of the extremities a general derangement of all the functions ; thus it is, that in this kind of affections, when the patient comes complaining only of the paralysis of his legs, we have, before we can restore their action, to re-establish previously all the vital functions, and to promote the general vitality of the whole economy.

To make the case as clear as possible, let us take for example the three preceding cases of attacks of paralysis, striking instantaneously the patient, as if by lightning, from a flow and effusion of blood on the brain ; when, a few moments before, the patient was in perfect health and in the enjoyment of all his faculties—when all at once he is deprived of the use of his limbs ; he can neither hear on one side nor speak ! How awful, how frightful it appears ! Compare this sad condition with a partial paralysis of the legs, and let the bystander choose one of the

affections ; he will take the lesser in appearance, and make a great mistake : the one which seems to be the worse is cured in ten or fourteen days, the other will take many months of the most careful treatment. Why is this ? Because, in the first instance, the patient was possessed of all his vitality ; whilst in the second case he was deprived of it. Because, in the first case, there is but an obstacle to remove ; whilst in the second, to restore almost—so to speak, to regenerate the exhausted vitality of the whole organism. I have demonstrated the difference between a fit of paralysis and a progressive paralysis, because I wish it to be well understood.

Patients are in the habit of comparing their afflictions with those of others. They see a man labouring under hemiplegia unable to feed himself, a living automaton ; whilst the person who is observing and is himself affected in the legs only, but has the free use of the upper part of the body, considers his case as trifling in comparison with that of the other ; he thinks that if the first case can be cured in a fortnight, his own must be cured in a week : if he finds that his treatment is prolonged far beyond the period of the one followed by the patient he has taken for an object of comparison, he becomes impatient, despondent, perhaps disgusted ; considers the treatment unavailable or non-efficacious, gives it up in despair, and loses the only chance he has to be restored. Let me impress on their mind the fact, that Nature has for her motto : Give due time ! I want nine months to prepare the wonderful construction of a new being, twenty years for his growth and development, and his whole life for its all-perfection. According to the same laws, she requires also for repairing the body, when out of order, time in proportion to its decay. These natural laws against which we foolishly rebel are, however, the blessings of Providence. If everything was not the work of time, disease would kill us at once : but it is otherwise ordained by Divine Wisdom ; time is given to us to repair the human edifice. But, again, this work requires time to make it complete, thanks to Him who created Nature's laws.

## CASE XLV.

*Gangrenous Ulcer on the Left Leg, attended at the Hospital without Success.*

Mrs L., aged twenty-nine, the wife of a bricklayer, has had three children—the last has lately been weaned. Mrs L. is a strong, tall, well-made woman, and has the appearance of health. About two months before she came to me, she hurt her left leg, on the outside, near the tibial bone, about half-way between the knee and the ankle. She at first paid no attention to it; when it became ulcerated, and discharged freely a thick purulent matter. She went for advice to St Mary's Hospital, where her leg was dressed, but it did not get better. She returned many times; but the wound increasing in size, the surgeon thought it proper to cauterise it with nitrate of silver, and by so doing stopped the discharge; the pain then increased. After she had called many times at the hospital, she was told that nothing more could be done: still the pain was increasing, till it became intolerable; she could scarcely walk or stand upon her leg. As I had employed her husband, and she had heard I had made astonishing cures, she called to ask my advice. I found a longitudinal wound, slightly concave, about three inches long by two in width, at a distance of three-quarters of an inch from the bone: the superficies was perfectly black and dry; the skin round it was inflamed and tumefied, discharging an ichorous matter in very small quantity. I put her in a bath; and when she left, I went to ascertain if the wound was softened, and if there was any sensibility, but found it as hard as wood. I washed it with salt and spirit; but she did not feel it in the least: the part was superficially mortified.

The next day she told me she had felt relieved; the same treatment was repeated, but there was no more sensibility over the wound, the pain being felt internally. She took the bath

daily; poultices were prescribed to soften the part; but it was only after a week that it began to gain a little sensibility, which increased in ratio as the internal pain diminished.

She was now able to walk and to attend domestic affairs without pain. All constitutional symptoms have disappeared; she eats well, and sleeps well. Mrs L. took advantage of this improvement, to neglect the treatment, and to undertake some work out of doors. One week after, she came very despondent, complaining of very excruciating pain; the leg felt stiff, burning, and a little swelled. I recommended rest, and to come regularly. In a few days the pain had disappeared; the superficies of the wound soft, and diminished in thickness: it sloughs away, leaving a healthy granulation near the surface of the skin, which is healed in a few days.

#### RATIONALE

This case gives us an example of the baneful effects of cauterisation, when, by destroying the permeability of the skin and deadening the teguments, the evil is shut in, and the work of destruction not finding the possibility of coming out, makes its ravages more and more deeply in the tissues, till it leaves no other resource but amputation. What is the effect of cauterisation? Nothing else, but to make a piece of living flesh a piece of dead substance, which shuts the door to the passage of the morbid matter, and prevents its escape from the part affected. This is quite contrary to the physiologic dictates of Nature, which, on all occasions, tends to throw to the surface, the injurious matter which is within. We have only to see how a simple abscess behaves, which brings out from some deep part of the body the morbid products existing inside, till it bursts out and discharges itself. We see the same results in boils, in bad fingers, &c. Why not follow the example Nature gives us? I do not say that escharotics should never be employed; but it should be done very cautiously, and with a due appreciation of its absolute necessity.



A short time ago, one of my patients came in a great fright, bringing me, in a piece of paper, some matter, cheese-like, which she had returned in the morning by the vagina. I asked her if she had ever been treated for a disease of the womb, and cauterised? She said, "Yes, some years past." That matter was the sloughing of the portion of the mucous membrane which had been destroyed, and came out in the shape of inert matter, pushed out by the effect of the bath. I prescribed the metallic speculum in the bath, which caused her acute pain; but, four days after, she was quite cured of all her ailments. She went to the country for a week, and returned in perfect health, fat, fresh, and an object of wonder to all her friends.

I cannot help thinking that most of the cancers of the womb must be the result of those modes of treatment which have for object the destruction of the part, instead of helping Nature in throwing out the cause of the disease. I have already given an example of the cure of ulcer of the womb in Case XXXVI. What would have become of that affection, had it not been cured by the Electro-Chemical Bath?

To return to the present case; it gives an example of what may be obtained in gangrenous affections by the Electro-Chemical Bath. If the reader understands its *modus operandi*, which I have explained in the Introduction, he will be able to comprehend, in accordance with the principles there demonstrated, all the apparent wonders of this therapeutic agent, to the simple deduction of the relation of electricity to the physiological laws of the organism.

## CASE XLVI.

*St Vitus's Dance, resulting from the presence of Intestinal Worms.*

A DAIRY-WOMAN who lived close to my establishment in Manchester, had a daughter, thirteen years old, who for about four years had been treated at the Infirmary and several Dispensaries for St Vitus's dance, getting worse all the time. She was brought to me. Her whole body is in a constant convulsive motion : when she walks, her legs get entangled, and cause her to fall down. The face is drawn and pale ; a large, dark circle surrounds the eyes ; the pupil is extremely dilated ; she is subject to spasmodic action in the abdominal muscles, and a rumbling noise in the intestines ; appetite very irregular, sometimes voracious ; the fæces unnatural. I suspected, from these symptoms, intestinal worms, and told the mother that if it was so, she would be cured in a short time. I prescribed vermifuge medicine and clysters. Two days after, she returned four long worms alive, about eight or ten inches in length. The child got better. The medicine was repeated twice : the next time she again returned three worms ; after the third, none. I submitted her to a current of electricity through the hands, and prescribed exercise and proper diet. In a few days she was perfectly cured. I saw her the following year : she was a remarkable fine, tall, fresh girl.

## RATIONALE.

I mention this case, not because it relates to my present treatment, but to point out that in almost every case we find the causes inside, although the symptoms are external. The girl was labouring under St Vitus's dance—so it was called, and she had been treated for it ; but the fact is, her affection was a verminous one. I call the attention of parents to those apparent nervous affections, which are but mere symptoms.

I have had many similar cases, even in adults.

I have been till lately under the impression that the Electric Bath was not available in these cases ; but I had a lady suffering from asthma and debility, who was recommended to me by her medical adviser ; and as she progressed rapidly in gaining strength, she thought it would do her daughter good, who also laboured under general debility.

When I saw the child, I found the symptoms of verminous disease : I told her to consult her medical adviser about it, who told her that he intended to give her some medicine for the purpose by-and-bye. But, after three baths, and without having taken any medicine, she returned a great quantity of thread-worms. I think we have a right to attribute this result to the favourable influence of electricity on the digestive organs.

## CASE XLVII.

### *Incipient Jaundice.*

I RECEIVED, one day, a note from my wife, stating, "I send you William. He feels so ill, that I have been obliged to procure a man to attend to the horses. William, you know, is a good, well-behaved young man ; I shall be glad if you can do something for him." I ordered immediately a bath, and went to see him.

He complained of a pain in the right side and the stomach, with a bitter, nauseous taste in his mouth. He is inclined to vomit, and had been constipated for some days ; has the headache, and feels such a prostration that he does not seem able to do anything. His face is not only pale, but the white of the eyes is of a yellow tinge, a precursory symptom of jaundice—I told him so. He was relieved at once in the bath. The cutaneous elimination was but little, having the character of the natural effetes of the body. He felt a great deal better when he left.

When he came the next day, I could scarcely know him :

he was of the brightest yellow colour, shining and transparent. When in the bath, he appeared as if he had been painted with chrome from head to foot. He has slept well, and felt incomparably better. The following day he came to thank me for my kindness, saying that he need not trouble me any more, that he felt quite well, and that he intended to go for a few days into the country, where his family was living. I advised him by all means to take a few baths more, fearing for him a repercussion of the bile. He took three more, when the colour had begun to subside; and he left in a perfect condition of health.

#### RATIONALE.

This case proves the exactness of my views with regard to the presence of morbid extraneous substances in the system, inasmuch as its removal restored him almost immediately. It proves, at the same time, the efficacy of the bath for producing this apparently incredible phenomenon. With respect to the primary cause, we might inquire if it was the ammoniacal effluvia of the stable, or the impure atmosphere of the mews—which is very narrow, inhabited by a great number of people, and generally dirty,—or, the result of exposure to the vicissitudes of the weather,—or, again, to the habit of stablemen using, as a remedy to their indisposition, malt or spirituous liquors,—or adventitious circumstances unnoticed by the patient. We might lose ourselves in the search of the origin of the evil; but let it be what it may, here, with the Electro-Chemical Bath, it becomes of very little consequence, as the patient is cured;—yes, perfectly, and in a few days. Now, had the patient, instead of coming at once to me, taken advice, and followed the usual treatment in similar cases, he would unavoidably have taken the alterative “calomel,” in what quantity we cannot guess; and supposing that in course of time the patient should have been relieved and cured of the jaundice, he would have accumulated in his body a substance much more injurious than the bile

itself. I have had several cases of jaundice which had been treated previously by the ordinary methods, which proved to be very obstinate in ratio to the quantity of drugs swallowed by the patient.

Till now, most of the patients I have treated came to me as a last resource when other means had failed, and thought that they should be cured as soon as those who submitted to my treatment from the commencement of their affection. I wish the public to be on its guard against such a presumption. For example, in this case I have related the fact, which is perfectly correct, that I have cured a case of jaundice in a few days. A patient who has suffered for many years, hears of it; he comes in the hope to be cured in about the same time, when, according to the case, it may require some months. He may say, "If you have cured a case of jaundice in so short a time, why do you not cure me in the same way, since it is the same affection?" Here is the great mistake of patients. They have begun with a simple disease, which in the course of time has become a constitutional affection, invading the whole system, and where the whole constitution must be restored. I wish to insist emphatically on this point, it being of as much importance to the patients in order to prevent disappointment, as it is to myself in the interest of my system and my moral character.

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#### CASE XLVIII.

*Case of Severe and Sudden Pain in the Articulation of the Knee, cured by a Single Application of Atmospheric Electricity.*

MONSIEUR P., an old cuirassier of the Imperial Guard, called on me, complaining of excruciating pain in the right knee, with which he had been seized the previous night. Not only he could

not move the leg, but he could not stand upon it without intense suffering.

I made him sit down; and as he was a strong, robust man, I passed about forty sharp shocks from my electric machine: after which, I told him to try to walk about in the room; when he found he had recovered at once the motion of his leg, and was able to walk naturally, feeling but a very slight pain.

I told him to call the next morning, and that very probably a second operation would entirely cure him. However, he did not come, as promised. I saw him but a few weeks afterwards, when I asked him why he did not call, as agreed. He told me that he had not found it necessary, as in the afternoon, after the operation, the pain was entirely gone, and that he had not had any return since.

#### RATIONALE.

I mention this case to show that every kind of electricity is equally endowed with medical virtue—so totally different from each other, that the success of the application depends entirely on the choice and mode of employing it, as no other means would have proved efficacious so readily as this method.

I have many times removed lumbago and sciatica, when of recent date, in the same way: I mean to say, before the affection had time to spread deeply.

In sanguine congestion of the eyes, when employed in due time, there is not a more efficacious means to remove it at once, not by shock or sparks, but by means of a wooden aura, with which the electric fluid is thrown into the eye, thereby forcing the blood to recede from the finest capillaries to the larger channel. The persons who witness for the first time this simple operation consider it as a wonder, whilst it is but a phenomenon we have the key of in experimental physic, which will be easily understood: viz., two bodies electrified with the same kind of electricity repel each other. Thus it happens that the

electric fluid thrown into the eyes transmits to the blood the same fluid, emerging from the instrument, which is made of solid matter; repulsion takes place between the instrument and the blood, which is immediately repelled, and flies from the instrument as if it was swept away: it is therefore no wonder, but a simple, a natural phenomenon, which surprises those who are not acquainted with the peculiar properties of electricity.

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### CASE XLIX.

#### *Case of a Wound Cured by Static or Atmospheric Electricity.*

LLOYD, a mechanic in my employment, aged forty-eight, a regular drunkard, happened to hit the shin-bone of his leg on the corner of the anvil, and to excoriate the skin. A few days after, I noticed that he was walking lame, and inquired the cause; when he related his accident, which he considered as trifling. However, a few days later I found him sitting in the shop whilst doing his work. I asked to see his leg, and found a wound larger than a half-crown, very much inflamed, and suppurating a yellowish thick matter. The leg altogether was discoloured and varicose: thus the case was getting of a serious character.

I had just at the time a medical friend from Ireland as a visitor. I asked what he would prescribe,—he advised Goulard water; and it was tried for a few days, but without producing any benefit. I asked my friend what he should think as to my applying electricity, in order to try if it would promote the action of the remedy. This having been agreed on, I sent for the man. The wound and leg were exposed, naked, and the operation by throwing a current of electricity from an electric machine (viz., the glass wheel), with an arm,

in the same way as in the Rationale of the preceding case. The electric fluid was first thrown all over the wound, which caused it to dry ; next, I removed the aura, and with the metallic conductor, with a blunted point, I took some slight sparks all round the edges of the wound in a centrifugal motion ; after which, with the electrical callipers, an instrument of my invention, I passed some shocks through the limbs, first transversely, and afterwards lengthways from the knee to the foot. The next day the patient was better. The operation was repeated for a few days, the patient improving each time. However, not knowing if the benefit obtained was the result of electrification, and this mode of operating taking much of my time, besides the time of a man in turning the wheel, I neglected the operation for several days, when Lloyd complained of a relapse. I asked him if he thought electricity did him good, but he did not know. I then resolved to ascertain it by experiment, and told him not to apply anything over the wound but a piece of tin foil, and that I would electrify him every day, which I did during ten days, when the wound was perfectly healed. The man has not taken any internal medicine; he was only forbidden to drink fermented liquor and spirits, and to pay attention to his diet.

#### RATIONALE.

This case comes to corroborate what I have stated in the preceding one with regard to the *modus operandi* of the electricity obtained by friction in the apparatus known by the name of electric machine. The first phenomenon which took place in the application of this kind was the removal of the purulent matter, which disappeared almost instantaneously, permitting me to see the bottom of the wound, on which a dry pellicle appeared, clean and shining, and became a protecting covering against moisture and the absorption of oxygen. Since I made this experiment,—viz, many years ago,—I read in a



French medical paper that the same result had been obtained in an hospital in Paris, in the treatment of cancer of the breast, by a process called *cauterisation par le fer rouge à distance*: viz., a red-hot iron was brought over the wound at a certain distance from the cancer without touching it, but for the purpose of drying the surface and also to purify the wound. It was stated that it proved beneficial. This is very probable, but what a difference in the mode of application! The radiant caloric of a piece of red-hot iron cannot be confined where it is wanted only; and as it is a burn, it must extend beyond the limit of the wound, and prove not only painful, but dangerous; whilst, by means of electricity thrown by a pointed aura, the action may be circumscribed to the spot. Next, electricity applied in this way, instead of being painful, produces an agreeable sensation, similar to the air coming gently from a pair of bellows. It has, besides the advantage of penetrating through the tissues, to drive the blood away, as it does in congestion of the eye, as I have explained in the foregoing case, and thereby to remove the inflammation. Let us say, *en passant*, that my intention in having adopted this new mode of giving the Rationale of the case being intended to illustrate, on the one hand, the rationality of my system, and, on the other hand, to diffuse some useful knowledge amongst my readers, that purulent matter is nothing else but decomposed blood, that an inflammation is but an accumulation of blood, and that when it ceases to circulate it is decomposed into pus, and that is the reason why discharging exhausts the strength of the patient; the mode, therefore, of using red-hot iron is very far from being so beneficial as electricity, as heat attracts the blood, and electricity repels it. In the case here mentioned, the electric fluid has besides other beneficial effects: when the patient is standing on the ground, instead of being isolated by the glass legs of a stool, the electric current returns to the ground, which for this reason is called the common reservoir of electricity, when

it happens that the electric fluid passes through the blood-vessels and the tissues of the whole limb. The above remarks are based on the acknowledged phenomena of physic, and thus cannot be denied. There is nothing new in what I have stated, except the application of these immutable laws to therapeutics.

We shall resume ourselves in the fact that the patient has neither used internal nor external medicine—that he has been relieved from the first operation, and thoroughly cured in ten days, having continued to work all the time, either without pain or losing his strength.

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#### CASE L.

##### *Local Rheumatism in the Shoulders, spreading along the Arms.*

LORD \* \* \*, in appearance between forty and fifty years of age—a tall, fine, powerful man—came *incognito* to try the bath. I had the honour to attend his Lordship without knowing his name; but there is always something that betrays true nobility.

I inquired of Lord \* \* \* what was his complaint; and he stated that for some days past he had felt disagreeable pains in his shoulders, and that he was now and then troubled in that way.

He felt comfortable while taking the bath, and left telling me that he fancied he was better. I have not noticed the elimination, having purposely retired from the bath-room, as he appeared disinclined to be communicative; but on examining the bath, I found it very much discoloured.

His Lordship came the following day, stating that he had certainly been relieved the day before. He took a second bath, and, as on the previous day, required but little attendance, and left, telling the attendant that he felt much better.

My Lord had a patch of black silk over one of his eyes, and when I inquired about the matter, he said, "Oh ! nothing ;" and I believe his Lordship spoke perfectly true.

I did not hear of his Lordship for several months, when, by chance, I found out who he was through my son, who was in the same school with some of his young relatives. They told my son the little, short narrative which they had heard—viz., that "their cousin, Lord \* \* \*, had taken two of my baths, and been cured."

It was very candid of my noble visitor to have communicated it to some of his friends ; but, with all due respect to his Lordship, as in all positions of life no one can be blamed for being afflicted with that common evil called rheumatism, I would beg to suggest that, on a similar occasion, the honourable members of the aristocracy will favour me with their names, which, as a matter of course, will not be published without their consent.

Rheumatism and gout are a common appanage of the great ; and there are now, and I may say at all times, noble sufferers amongst the illustrious supports of Government affairs, who would better like to occupy their seats in the House of Lords or in Parliament, instead of keeping their room at home ; and who do not seek my assistance, because no one of their high cast has been able to proclaim aloud the place where they can be relieved ! Still, it is evident that in the supposition of His Royal Highness requiring my services and putting to the test my mode of treatment with beneficial results, his example would be followed by, first the Court, and next the public.

Perhaps some readers will suspect that my object is self-interest. On that point, I beg to intimate that I have at heart a more laudable object—viz., to propagate my system in hospital practice for the benefit of the poor. I have for that purpose offered my assistance gratis to the Profession for their poor patients. Next, I may venture to state that my mode of treatment is gaining ground, and is from time to time recom-

mended by distinguished members of the Faculty, to whom, availing myself of this opportunity, I return my thanks.

I will add that hospital affairs being transacted by a board of governors, private opinion is of very little use in favour of my appeal. But let a great personage be liberal enough—and there are a great many who daily give this example—take the matter in hand, and have it duly and impartially investigated under his auspices; with regard to its real worth or demerits, if so it should be found, and either support and patronise if it deserves it, or openly throw the odium on the system if it is unworthy of confidence; and he would, I venture to say, render a great service to sufferers, and confer a valuable boon on society at large.

The great are powerful in matters of science, for several reasons: first, because they are men of instruction and knowledge, and therefore competent appreciators of the value of things; secondly, because their influence has a large extension. I therefore crave their favours, but without asking partiality for myself.

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#### CASE LI.—JUNE 14, 1858.

*Rheumatismal Affection arising from the Retention of the Natural Effetes of the Body, and the subsequent addition of Extraneous Substances taken in the shape of Medicine.*

EDWIN JASPER, aged thirty-nine, married, was suddenly seized with rheumatismal pain under the left shoulder-bone, extending down to the elbow, causing contraction of the arm, and preventing him from using it. The pain was so intolerable, that he was obliged to take to his bed for a fortnight.

Placed himself under the care of a surgeon, who, he believes,

treated him by mercury, and reduced him so much that he could scarcely walk: he consequently gave up his treatment, and went to a medical botanist, who gave him strengthening medicines, which partially restored his strength, but the pain still remained.

He felt easier and comfortable while taking the bath. The cutaneous elimination was but slight; the deposits present a mingled discoloration. Local electricity being applied after the bath for the purpose of acting on the nerves of motion, it at once produced the favourable effect of permitting the patient to move his arm.

June 15.—Had no rest last night, and feels this morning weak and despondent; the pain is much worse, but leaves him in the bath.

Cutaneous elimination profuse; has taken some pills that he had by him, to open the bowels; recommended him not to take any internal medicine. Local application as yesterday.

June 16.—States that the joint cracked during the night, which seems to relieve the pain and reduce the rigidity.

June 17.—Feels considerably better; the pain in the arm has almost subsided; has slept well; natural evacuations.

June 21.—Has omitted several days, and does not feel so well to-day; the pain in the shoulder is worse; bowels costive.

June 22, to 24, 25.—Has been improving.

June 28.—Feels languid to-day, with a great pain in the shoulders: attributes it to having neglected the bath yesterday.

July 2 to 7.—Has been gradually improving.

July 9.—States that the last three days are the best he has had since taking the baths; he has been quite free from pain; bowels again confined. The same treatment has been repeated, with local application.

July 10.—No pain whatever in the arm, can use it in every respect as well as ever. He states that he has not been so well in health for a long time; complains of a slight pain about the

heart. (Likely, the result of a derangement of the circulation, produced by the costive condition of the patient.)

July 12.—Return of slight pain in the shoulder; three large and very much inflamed boils have appeared on different parts of the body;—the bowels have acted naturally;—local electricity applied while in the bath to the left side, for the purpose of promoting the evacuation of the morbid matter.

July 15.—The boil on the left side has been so painful that the patient could not rest during the night; otherwise the arm is gradually getting better;—the nervousness has disappeared;—urine very thick and sedimentous, with a disagreeable smell.

(This case presents now a new and favourable feature, also it seems aggravated; because the formation of some boils, the character of the urine, and the constant profuse cutaneous eliminations, are, according to my doctrine, throwing out in various ways the extraneous and morbid matters, which, by their retention in the system, were the real causes of the patient's disease and suffering.)

July 19.—The patient feels languid and depressed, a natural consequence of the general internal working within the body; for several days the deposits of mercury have been considerable; the boil on the scrotum is very much reduced.

August 1.—Not so well to-day: is depressed; feels a pain over the left breast.

August 2.—The pain in the breast is gone; appetite better. Great cutaneous elimination and deposits of calomel.

August 3.—Slight pain in the right shoulder. Applied galvanism locally.

August 6.—Pain relieved; appetite good; bowels regular.

August 7 and 8.—Arm worse; rest indifferent.

August 9.—Neuralgic pain in the shoulder.

August 11.—Free from pains. Profuse cutaneous elimination; numerous deposits of calomel and mercury (quicksilver).

August 12.—Had a much better night; rested well.

August 14.—Slight pain in the chest,—continues the following day.

August 19.—Nothing whatever to complain of. The shoulder for the last week has been quite well. Great mercurial deposits.

August 21.—Has had no pain for five days.

August 23.—Feels well in all respects. Appetite good; bowels open.

August 26.—The patient has not had any kind of pain for a fortnight. All the functions are perfect: he can use his arm as well as ever, and, considering that he is quite restored in health and vigour, ceases the treatment, expressing his gratification for the unexpected result and happy issue of his case, and thanks for my kind attention to him.

#### RATIONALE.

This case is very interesting under different points of view, and I wish particularly to call the attention of the reader to its features, as presenting a series of phases of great variety; the disappearance and reappearance of old and new symptoms, sometimes so unexpected, that without a great confidence in my doctrine and mode of treatment, any other patient would have been discouraged and have abandoned the treatment, just at the time it was presenting the most favourable prognostics. Had Mr J. lost his patience, he would not on the one hand have been cured, whilst on the other it would have thrown discredit on my system; in which case both of us would have been losers. This circumstance gives me the opportunity to observe, in behalf of my personal convictions, that all patients who once improve under my treatment, will be cured if they persevere, and give that time which Nature requires for the accomplishment of her work. It is neither the patient nor myself who has a right to determine the period necessary for the perfect cure of any kind of disorder or affection. It often happens, however, that patients come to me for the purpose of taking a course of baths, viz.,

twelve, without regard to the nature of the disease or its duration.

Next, by what term shall we define this affection? What name shall we find in Nosology to qualify it? Is it a mere rheumatism, or a mercurial affection? It is a compound of both, which came out in a particular form. Simple rheumatism is simply the retention of the matter of perspiration; so was the beginning of this affection. But mercury, iodine, lead, are not by any process generated or manufactured within the body! Here, therefore, we have not to deal with a simple rheumatism, but with two: the primary one composed of the mere effetes of the body, soluble salts and matters which are dissolved in the water of the bath; the second rheumatism, a mercurial, or, I may say, a mineral one, as it is composed of various metallic substances which are deposited and plated on the copper of the bath. We also find in the discharge of the cutaneous eruption, and the large boils which came over the body, morbid and purulent matters, proving at once, what I have advanced, viz., that the Electro-Chemical Bath is good in every case, since it removes from the organism the effetes of the system, the impurities of the blood, the morbid matter, and all inert substances, which through various circumstances may exist within the animal economy.

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### CASE LII.

#### *Muscular and Articular Rheumatism of Twelve Years' Standing Cured with Two Baths.*

MR A., thirty-six years old, working jeweller.

Mr A., married, when a young man was very fond of angling, and used to stand in the water up to the middle of the body, in consequence of which he got a rheumatism in the legs: this went off, however, of itself in the course of time, when



Mr A. thought he could again enjoy the pleasure he was so fond of. After some time, the pain returned, when he was then obliged to have recourse to a medical adviser to be relieved. He went on like this, to and fro, till he was obliged definitively to give up fishing. He then married: but, notwithstanding he had renounced his former predilections, he was now and then subject to rheumatic pain, in consequence probably of not having the same bodily exercise he was accustomed to.

When it happened one day he lost the use of his fingers, and was seized with such violent pain that he was compelled to keep to his bed; having heard of the efficacy of the Electro-Chemical Bath in rheumatism, he made up his mind, at once, to try it previous to taking other medical advice.

When he called on me, although, as I have stated, he was but thirty-six years old, he looked seventy: his hair was almost white, he had not shaved for many days, and stood almost bent in two, notwithstanding his walking with two sticks: he was the image of decrepitude.

After I had heard his story, I immediately ordered a bath. It was at that time that I had but one bath-room, on the second-floor of my house: I was obliged to have him carried up, as had been done with Thompson. When put in his bath, he felt exceedingly comfortable, becoming more and more easy as the time was passing on; his hand became supple, and his fingers flexible; when he got out he could stand straight, and went down stairs without assistance.

The next day, he had shaved himself, and looked so different that at first I could scarcely recognise him: he went up stairs by himself. After he had been some time in the bath, he exclaimed, "Oh! I can again open my mouth freely." The articulation of the jaws was also involved in the want of motion. Before leaving his bath, he was quite in ecstasy, full of cheerfulness, saying, "I am cured." Before going, however, he made an appointment for the next day.

He did not keep it ; and several days passed away without seeing him. When I sent to his house to enquire if something had happened to him, A. had resumed his work, and was gone to the shop where he was employed.

#### RATIONALE.

I give this case without analysing it, but as a fact. I cannot attribute this inconceivable recovery but to the supposition that the patient had not taken any inorganic metallic preparations ; and thus, his rheumatism was what I qualify simple rheumatism, viz., originating from the retention of the mere natural effetes of the body.

The following case will present a similar character to the present one.

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#### CASE LIII.—OCTOBER 30, 1857.

##### *Rheumatic Gout of Fifteen Years' Standing Cured in Fifteen Days.*

MR DUDLEY, boiler-maker, engaged on steamboats, aged fifty-two, married twenty-eight years ; has always enjoyed good health, and was a very powerful man until attacked by rheumatic gout, about fifteen years since.

The first attack was in the right foot, and confined him to the house for two months : was attended by Dr Brisk, of the "Dreadnought" hospital-ship ; was then able to follow his employment for a few months, when he was again attacked in the right hand, and was treated as before—took colchicum and opium pills, and after a few weeks was able to resume his employment. He was next seized in both feet, when he was confined to the house for several months. During this time he took Blair's Gout and Rheumatic Pills. Since that time he

has been unable to follow any employment for more than a month at a time ; he has been subject to gout and rheumatic pains in the feet and legs, arms, hands, and stomach ; has been treated by various medical gentlemen in different parts of the country. In 1851, was attacked in the knees and ankles, hands, arms, and shoulders, and then went into Guy's Hospital, where he continued six weeks ; and on a return of the complaint, he again went, conveyed on a mattress, being quite unable to move his body. He remained there a fortnight, deriving no permanent benefit. During his various illnesses, he has taken different medicines, such as Dutch drops, mountain flax in old ale, and many other herbs.

He now suffers in the hands, wrist, left arm, and both feet and ankles ; appetite very indifferent, sleeps badly ; walks with a stick, while supported on one side by his wife, and, notwithstanding, with the greatest difficulty.

This patient comes with his wife, not being in a position to be trusted alone. He cannot hold a cup in his hand nor raise his arm, so that his wife is obliged to feed him.

He had been but a short time in the bath, when he called for me to show that he could move and extend his fingers.

As I advised him to take the bath daily, and he was living at Deptford, being obliged to come by the railway and have a cab from the London railway station, he thought with his wife that it would be cheaper, and cause less trouble and fatigue, to take a furnished room in the neighbourhood.

On leaving the bath, he found that he could walk a great deal better, and hold his sticks much more firmly. They went out in search of a lodging, when they happened to pass before a cook-shop. Dudley said to his wife, "I feel hungry ; let us go in." They had each a plate of meat and vegetables, with a pint of beer. Dudley despatched his portion in no time, whilst his wife had scarcely eaten half of hers.—"Are you not in appetite ?" said Dudley.—"Yes," answered the wife ; "but I have

enough.”—“Then I will help you,” retorted Dudley, and did it very heartily. (The bath always increases appetite and digestion.) He felt strong enough to return home.

The next day, Dudley felt another man : he thought that he could walk a part of the way, and did so. After three days, he came alone, and walked back to the London Station ; after five days, he was able to walk from here to the station, by rainy weather, carrying an umbrella ; the following day, he came on foot from, and walked back to, the station.

I need not enter into the details concerning the elimination and deposits in the bath ; I shall leave the patient to speak for himself in the following letter, which he sent me of his own accord :

“ TO DR CAPLIN.

“ Orchard Cottage Deptford, Nov. 17th, 1856.

SIR,

“ I take this opportunity of returning my sincere thanks for your kind attention to me during the time I have been attending the baths. Previously to my doing so, I was a sufferer for fifteen years from rheumatic gout, during which time I tried every means to get relief. I have had all the best advice that money could procure ; I have been twice in hospitals, besides trying all the patent medicines, but failed in getting any real benefit. At length a friend of mine (after a great deal of persuading) induced me to try your baths, and, I am able to say, with the most happy results.

“ When I first came to you, I was not able to walk without the help of a crutch and stick, and then only about the house. After the first bath, I ate a hearty dinner, which I had not done for a long time before ; after the third bath, I was able to walk from York Place to London Bridge Station, and have been continually improving, until, after fifteen baths, I feel myself in every respect better than I have been for years. I am entirely free from pain, my appetite very good—in fact, a new man, and able to follow my occupation. Again returning you my most sincere thanks,

“ I remain, your most obedient servant,

“ J. DUDLEY, *Engineer.*”

## RATIONALE.

I shall not digress on the present case, but wish to point out that it has a great similarity with the preceding one; I put it, therefore, in the same category, and call it simple rheumatism, notwithstanding its severe character. The patient was a very powerful man: he had not taken any drugs before he was attacked with his present affection, except what he might have taken while in the hospital. We see that the medicines taken belong to the vegetable kingdom.

Dudley is a very bold, daring man: he trusts in his good constitution. When on board, if there is anything wrong in the engine, he lets the steam off and gets in, to make the repairs. He gets out pouring with perspiration, remaining uncovered and exposed to the air, or jumps into the water. This is the cause, and a sufficient one, to account for his disease.

While speaking of him, I cannot help relating a rather funny anecdote. Dudley had a friend who had been foreman in a lead manufactory, in consequence of which he had become a cripple for some years. They were fellow-sufferers at the same time; they happened to meet a short time after Dudley's recovery, and he was astounded to see him so well.

"What have you done?" he asked Dudley.—"I took the Electro-Chemical Bath," he answered.—"Indeed!" retorted the other. "I had given me, about eighteen months ago, a print about it, and went to ask my medical adviser, who could not relieve me, what he thought about it. He told me "that if I had money to lose, and did not care for my life, I had better try them."

The man came to me, and repeated what his medical man had said.

"Well, my dear sir," I asked him, "has it ever come into your mind to ask your grocer, butcher, or baker, if some other in the same line would serve you better than he did himself?" The man laughed, and confessed that it was very foolish of him.

He did not die in my hands, nor ruin himself, notwithstanding the prevision of his medical adviser ; but he was far from being cured so rapidly as his friend, because lead is an inorganic matter, which is not acted on by the organic functions of the system, and in these cases we have not Nature's help. Although the man was apparently labouring under a rheumatism, and enduring the same sufferings as his friend, it was a lead (or saturnine) rheumatism instead of a simple one! This is a very common mistake with patients who suffer rheumatismal pains which do not originate from cold, but from the retention of inorganic substances.

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#### CASE LIV.

##### *Neuralgia of the Face of Ten Years' Duration.*

MR M., forty-five years of age ; married, family ; retired officer in the Civil Department of India ; a strong-built man.

Has been suffering for the last ten years with neuralgic fits of the face ; when he speaks or laughs, they come on in the shape of spasm. The muscles of the whole of the face, but particularly the left side, contract violently, the blood flows to the head, the vessels of the forehead protrude, and for one, two, or three minutes he is in a state of agony. Sometimes, when this gentleman has a cause of excitement, these fits come on two or three times in the course of a quarter of an hour. While in India, he had tried every possible thing without any benefit. A strange circumstance is, that, as he was called from one station to another for the fulfilment of his duties, there were localities where those fits would pass away, whilst they were worse in some others.

This gentleman came to consult me ; and, in accordance with my doctrine and past experience, I came to the conclusion that

the seat of his affection was located in some viscus, and that the neuralgia was but the reflex action of some visceral derangement. I accordingly prescribed the baths. Mr M. was labouring also under constipation, and the urine was unhealthy—sometimes natural and clear, sometimes thick and cloudy, leaving deposits in the utensils, and having a strong smell. Notwithstanding my questions, I could not get any clue from the patient as to the cause of his affection; and his wife, who used to come with him, would not admit that the disease could be anywhere else than in the head.

After a few baths, calomel was deposited in great quantity, sometimes with spots of mercury, arsenic, antimony, and iron intermixed, and increasing in intensity from time to time. One day, while in his bath-room, I questioned him again, and asked him if he had not had dysentery or other of the diseases Europeans were subject to in India. He answered, "Nothing to speak of."—"Have you been subject to lumbago?"—"Yes; but it was brought on by horse-riding." Mr M., like a great many others, had a fixed idea as to his affection, whilst I conceived the idea that his disease emanated from the kidneys.

One day, Mrs M., who was waiting in my study whilst I was attending my patients in their bath, amused herself in perusing a work on the American practice. When I came up, she told me: "You have a valuable book there. Do you know there is in it a prescription for neuralgia?"—"Yes," I said. "Why don't you try it?"—"Because I do not think it advisable." "But can it be tried without danger?"—"Yes; but without benefit, I am sure."—"Will you oblige me with the recipe?" I gave it to her; she had it made up by the chemist, and it was applied at night.

Mr M. came the next morning with some of the epidermis of the face removed; he had not slept, and was not better. I had not before had the opportunity of making use of this counter-irritant: it was a compound of essential oils. Considering from

the effect it had produced it was good as such, I advised Mrs M. to apply it over the region of the kidneys, when the patient had no fits for three days. There appeared on the skin, just corresponding to the middle of the kidneys, on each side of the spine, two little blue spots of the bright colour of ultramarine: they remained for nearly a week. I watched them closely, in order to examine them with the microscope, if I could extract them in due time: but they fell into the bath.

Since that time, Mr M. progressed more sensibly: he was now and then one or two days without fits, and the paroxysms were less intense. He now thinks that a change of air would do him good; he does not like London, and intends to go to Scotland. I advised his wife not to go so far, as then he could not come to me in case of necessity. I recommended Richmond, so that the patient might come to take his bath two or three times week, and give them up progressively. Notwithstanding, he was a fortnight without coming: he took a bath, and was again another fortnight without making his appearance. He came with a bad finger (the thumb of the right hand), from which he had suffered acutely for more than a week, being prevented from sleeping. It turned into a furuncle; and it being too late to diffuse it by external means, I opened it and dressed it, but I had a great deal of trouble to save the bone. Ultimately, Mr M. found himself well enough to realise his wish to live in the country, and started accordingly. A few months after he came to London, and, in order to cause me a surprise, he knocked at the door of my study, and keeping it ajar, he put his head in, and said, "You do not know me!" Without his voice I should have scarcely known him, with his clear, ruddy complexion, and his fat and jolly countenance.

I have had the pleasure of seeing him many times in London and in France, where he lives with his family, and for more than three years he has not had a relapse.

I must relate, in connection with this case, a curious circum-



stance. I have said already that the wife of this gentleman refused to believe that the seat of the affection was in the kidneys; but at the same time her husband was following the treatment, I had a lady patient, whose case being embarrassing, I thought of trying if the lucidity of a *clairvoyante* could be of any assistance: I had heard of her capacity from a medical friend who used to mesmerise her. She had given me a very correct description of the person, with several particulars I was acquainted with, and also some information which proved afterwards to be true. Mrs M. knowing this experiment, I proposed to her to repeat it in her presence, with regard to her husband. We went accordingly. Mrs. M. sat near the *clairvoyante*, and gave her some hair of her husband. I took a seat at the other extremity of the room. The *clairvoyante* said, "There is a congestion of the vessels of the brain: a rather serious one." Mrs M. looked at me with significance (meaning I was mistaken): the *clairvoyante* continued: "there is a great irritation of the nervous system,"—other looks! "the lungs are sound, but the liver is slightly congested and torpid,"—other looks! "the spinal membrane is in a state of irritation,"—a new look! Then she exclaimed, "Here is the seat of all the evils: the kidneys are inflamed; there are small tubercles, and a great irritation all over,"—the triumphant countenance of the lady took another aspect: still, when she left the house, Mrs M. was not more convinced. However, the patient, besides the general treatment, was attended for the disease mentioned, and ultimately cured.

I know of many medical gentlemen who, like me, had not consulted somnambulists endowed with the gift of lucidity, and the moral courage to confess it, because they were afraid either to be laughed at, or, perhaps, in order to have the credit of giving a correct prognostic. For myself, I do not keep a secret of this kind; I think that when we are constantly surrounded by incomprehensible phenomena which, in spite of the narrowness of the human mind, have proved to be true—when nature has

revealed now and then some of her unlimited secrets, we have not the right to deny her power or condemn anything because it is beyond our comprehension. "Search, and thou shalt find!" According to this notion, I investigate everything in my way; mesmerism, biology, electro-psychology, phrenology,—every system, old and new. In every doctrine there is something good to pick out: it affords means for reflection, comparison, and deduction. It is the way to emancipate the mind, and follow the path of rational philosophy.

#### RATIONALE.

If I was to undertake to solve the question, What is a neuralgia, and its primary causes? or attempt to define if it is an affection *sui generis* of the substance or decay of the nerves; or only an impression received by these central chords produced secondarily; or a reflex action of some other diseased part of the organism,—I could write a volume: but as neither time nor room permits me to attempt it, I shall confine myself to point out, that in this case neuralgia was but a symptom of a remote affection. The mental alienation reported in Case XXXI. was the same. I shall add, that, lately, I had a lady who came to me for a neuralgia over the right eye, who has been cured by a general treatment; and that I have had several cases of the same kind. I shall say also, that what I consider as real neuralgia is, according to my opinion and experience, but an accumulation of the natural electricity on some particular point of the system; and that I have cured instantaneously some of these cases with atmospheric electricity (*viz.* the electricity produced by the electric machine).

These questions are evidently too intricate to treat of in such a book as this, especially as I have on this subject some notions of mine rather in opposition to the various authors who have treated this difficult question: I cannot venture to give an imperfect sketch without exposing myself to a severe censure of presumption, unless I could clearly prove, by proper defini-

tion and sufficient illustration, the foundation of my belief, since the work of Dr Tissot, in four volumes, published in 1784,\* and those of Walker, Charles Bell, Brown-Séguard, and other distinguished men. It would not be becoming to place myself on the same footing with gentlemen of so high a reputation: however, I intend to humbly present my opinion some day on this interesting and important subject. For the moment, I beg only to remark with regard to this case, that during ten years the patient has been treated as if the seat of the disease was in the nerves, emanating from the brain, whilst the affection was located in the kidneys; and this fact explains how the pain was either increased or diminished by the change of localities, where he had likely met with waters of different chemical property, affecting in different ways the special organ most affected by liquids.

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#### CASE LV.

##### *Internal Abdominal Tumour.*

MRS M., about thirty-eight years, the wife of the gentleman alluded to in the preceding case, has had a large family; she is very stout, with a relaxation of the muscles of the abdomen. Some time after they had returned to London she felt a weight inside, which caused her pain in walking. She consulted a surgeon, who detected a soft tumour over the navel, and advised her to go to take the waters in a particular locality in Germany; she did not recollect the name of the place. Before doing so, she went to ask the opinion of my wife, who told her that if she intended to follow the advice she

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\* I mention this work as a medium between the hypothesis of ancient times on the nature and functions of the nerves, and as having been the key to our modern discoveries, the author ranking in physiology with Lavoisier in chemical science.

had received for the purpose of diffusing the tumour, she thought the Electro-Chemical Bath would be more available for her disease than anything else ; that she must be aware of it herself, after having witnessed on her husband and other patients the power it possesses to throw out of the body everything foreign to the organism.

The lady came, and after the second bath red spots appeared just over the place where the tumour was located: then an eruption of large pustules appeared; they opened and increased in size, some being larger than a shilling, discharging abundantly a thick whitish matter. From the first appearance of the eruption, Mrs M. was relieved, and could walk with more ease; she presumed on it immediately by taking long walks, under the impression that exercise would do her good; when she came one day complaining of great weakness. She has for several days come from Brompton and returned on foot, spending more strength than she was gaining, and believing that it was the effect of the bath which weakened her. I mention this particular, because I have had many similar instances: patients tire themselves by extra exertion; some walk too far, or too quick; some go to parties; others spend the night in pleasure; they exhaust themselves by some extravagance or other, and complain of getting weak; without reflecting, that by spending more force than they can acquire, they must, as a matter of course, weaken themselves. I call the most serious attention of the readers to these apparently trifling occurrences, which a single moment of reflection will elucidate in its true light, as a mere matter of common sense. For example, it is no matter how rich a man may be, if he spends more than he possesses, he is sure to ruin himself. Again, it is no matter how strong a man or a horse may be, if the work they perform is over their strength, their constitution must be ruined. Apply the same rule to the invalid: never permit him to spend more strength than he has, or else, in spite of the most rational and

efficacious treatment, he will lower his system; if he wants to gain in vital force, and increase his power, he must spend less than he is possessed of, in order to accumulate it.

I have had an old lady patient, who was progressing most favourably, when one day she brought with her a younger healthy friend. In returning home together, the youngest walked quicker than my patient, who, instead of complaining, tried to keep pace with her. She came the next day in a complete state of prostration, and was more than a week before repairing the effects of her imprudence. I wish to impress the mind of every one of this fact, as a general rule, which should be observed on every occasion; my having had some patients labouring under the impression that they were weakened by taking the baths, whilst, in reality, they were weakening themselves in spite of the strengthening action electricity has over the organism. In conclusion, the lady in this case was radically cured of her tumour without going to Germany or taking any kind of medicine. I see her occasionally, and she has never had any relapse.

#### RATIONALE.

It would be out of place to undertake here to give the pathology of every kind of tumour. We may say only, that all tumours, however large they may be, always began, I should say, in their infancy, by a small kind of nucleus, which increases in bulk and in consistence in the course of time by the aggregation of new substances, changing the structural condition of the part affected. The above case is a proof that they may be diffused by electricity when attended to in due time. With regard to those which have arrived at their ultimate developments, I have not had the opportunity of forming any opinion; I may only say, that electricity may be tried without danger, and that it should be advisable to try it before having recourse to the knife.

## CASE. LVI

*Case of Scarlatina.*

A DAUGHTER of the above patient, ten years old, had been indisposed for two or three days. The mother told me that she had lost her appetite; she was peevish, complained of headache and nausea; that she did not sleep well, and was rather feverish. She asked me what I thought it might be. I said I suspected an eruptive fever. "What is to be done?" she asked again. I answered, to take the baths.

The next day she was brought and put into a bath. She had not then a single pimple on the body. She complained of a great itching and pricking in the bath; she did not like it at all; she would never take another. When she was taken out of it, she was covered all over with scarlatina. I prescribed a stimulant diaphoretic drink, and to be brought again the next day; but the parents could not prevail on her to do so. Three days after, the child was perfectly well.

## RATIONALE.

This case is one of the most interesting in every respect with regard to eruptive fevers, and comes just to corroborate my preconceived ideas on the nature of this kind of disease; it deserves, I think, an illustration of its character.

The first question is,—What is an eruptive fever? Where does it come from? The answer is simple, and the result evident: it comes from the inside of the body. Is it a morbid taint, or a particular virus, which is thrown out by a spontaneous effort of nature, whose object, in all circumstances, is to throw out of the organism everything injurious to the system? Why does it not come out without causing fever? Simple enough!—we cannot be submitted to extra exertion without the heat of the body is increased. According, therefore, to the

same rule, no extra exertion or internal effort can take place within the organism without an increase of caloric. This caloric, which dilates the blood, affects the whole circulation ; its passage in the blood-vessels is more rapid, its pressure is greater, the pulse is stronger and precipitated, the skin is burning, and the whole constitution altered, till both the matter and the caloric find an exit from the body. Thus, when the eruption appears, the patient is relieved ; and if the poisonous matter is entirely thrown out, the patient is cured.

What is, then, the *modus operandi* of the Electro-Chemical Bath in eruptive fever ? It is merely to come to the assistance of nature, in accordance with her design. The patient is in a warm liquid, which dilates and opens the pores of the skin ; while electricity, saturating the whole organism, seizes on the morbid matter, and, in its exit through the pores, conveys it out in the direction of its current. When both the matter and the extra heat are removed from the system, nature resumes her normal condition, and the patient is safe.

It is long since that, with my fellow-colleagues of the Medical Reform of America, I have been of opinion that fever is not a disease *sui generis*, but a symptom of some primary cause ; in which case, the cause being removed, the fever ceases. Let us choose a plain and common example, known to every one.

A person goes out in the morning in a state of perfect health ; walks quickly, and breaks out into perspiration ; he is overtaken by a shower, the wind blows, he gets wet and cold. The pores of the skin get collapsed, the perspiration is stopped, the heat is shut in, and the effetes of the body are retained in the system : he returns home with a fever.

What is the first and real disease ? It is the retention of the matter of perspiration ; and of the extra heat confined inside. What in this case is fever ? The result of the above retention, and a mere symptom of the derangement of the body. Let the

patient take a vapour or an electric bath, or restore by any means the perspiration, and the fever is gone!

From the above remarks, I have a right to conclude that every kind of eruptive fever can be prevented and cured by the Electro-Chemical Bath, even including small-pox, and more safely than by vaccination.

In support of my opinion, let us inquire what is the *modus operandi* of vaccination, and follow the different phases of that operation. Small-pox is not an inherent condition of the organism. A great many who have never been vaccinated have never had the small-pox. Another proof of it is, that a great many others who have been vaccinated have not had the variolic pustule, and could not, to use the common expression, be vaccinated.

What is the solution of this problem? We find it in daily practice. A child cannot be vaccinated; why? Because if he has not the taint in his system, it cannot, as a matter of course, be brought out! A second is vaccinated, when the pustules appear only on the arm. A third is operated on, who brings out some pustules, but in little number, on the arm and the trunk. A fourth is submitted to the same process, when the body is partly covered with eruptions, and is subject to a constitutional derangement.

What conclusion can we infer from these various phases of vaccination? That the first had no variolic virus; that the second had it in small quantity; that the third had it in greater quantity; and the fourth was saturated with it.

What, then, is the *modus operandi* of vaccination? Is it not the inoculation of the cow-pox itself, which is introduced through the derma, and absorbed by the cutaneous absorbents? The affinity of the cow-pox with the variolic principles in the human body stirs it in the system, and brings it out in a benign manner, because the child being in a condition of health, has the power to repel the poison without injuring its constitution.



Vaccine, therefore, by stirring the variolic virus, helps nature to throw it out, when she is in a propitious condition, viz., before being exhausted by her own efforts.

What produces the Electro-Chemical Bath in comparison to vaccination? First, it does not introduce a poisonous substance for the purpose of forcing another out; it does not inoculate the disease of those from whom the vaccine is taken; it does not in any case produce any constitutional derangement; it does not cause fever; it does not expose the patient to repercussion; and has the great advantage not only to remove small-pox, but also the virus of all eruptive diseases: it will at the same time prevent urticary, miliary, measles, scarlatina, and remove without distinction all kind of taint and impurities of the blood. I have till now but one example to produce in support of my deduction: but this single fact, in addition to other similar results, will bear me out. I think I may come to that conclusion; at all events, time will prove, and, if I am not mistaken, the Electro-Chemical Bath will some day supersede vaccination. If tried for the purpose, the mode will be very simple. Let children take one bath occasionally: if there is no predisposition to eruptive fever, the bath will on all occasions promote the vital functions, keep the skin in good condition, stimulate the circulation, give tone to the nervous system, and in every way prove beneficial. Such is my prevision. This opinion will not in any way prejudice the discovery of the great Jenner, who at the time rendered the greatest service to the cause of humanity; but, as time is marching on, and past discoveries have in many instances been superseded by new ones, and the present ones may and will, according to the ordained law of progression, be superseded by others, I think it my duty to submit my belief to a general investigation. I am not afraid of being criticised, inasmuch as if it is honestly and impartially done, it will throw new light on the subject, and, one way or other, turn to the benefit of the community at large.

## CONCLUDING REMARKS.

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My first intention in publishing this work, was to place before the eyes of the readers a series of all the various diseases I have treated by my method, in order to give an answer to the question so often asked of me: "For what kind of affections is your treatment good?" Should I have answered that it is good almost for everything, it would have been considered at once as an unbecoming and absurd presumption. I thought then of the French saying, viz: "Who pretends to prove too much, proves nothing." I thought it proper and wise, therefore, to bring before the public proofs in support of my assertions; but what kind of proof could I give? I could not suppose that my bare word could be a sufficient voucher. I resolved, therefore, to take Nature herself as a guarantee of the truth of my remarks. So far, I thought myself to be in the right way; but another difficulty presented itself, viz., that the voice of Nature is not understood by every one! Nature's language is not so easy to comprehend, even by those who make it their profession to explain it; and it is, therefore, much more difficult to make it understood by those who have never studied it. However, it being my object to be comprehended, I thought that the best means was to reduce those intricate and embarrassing questions to a mere matter of common sense. How far I have succeeded in this difficult task, it is not for me to decide. I have tried my best; if I have failed in the attempt, I can at all events pledge my word that I have been impelled by conscientious motives, in the hope that, if I could enlighten the public on a matter of such high interest to the community at large, I should have fulfilled the duty of my Profession.

On the other hand, I found myself again in a maze of embarrassment. The course I have adopted naturally led me to the criticism of other systems: and every one will agree that it is a very ticklish position for an individual to fight single-handed, and without a shield of protection, against an innumerable army of adversaries whom I should wish to bring into my camp. I here declare to them, that I am not guided by any feeling of hostility, nor by any personal presumption: I present to them only a discovery that I have assiduously studied on every side. I do offer to partake it with them, and to work it in common for the well-being of suffering humanity: helped by their concurrence, assisted by their knowledge and experience, supported by their love of doing good, we may increase the resources of the Healing Art.

I do not compare myself in capacity with the immortal discoverers of the past times; but perhaps it is to the purpose to state, that there are things better seen by the eyes of the mind,—a particular intuition,—which reveals facts quite in opposition to the belief of the past and present generation. For example, when Galileo discovered the rotation of the earth round the sun, he had not seen the earth turning, and he was considered a heretic. When Christopher Columbus went in search of another continent, he was looked upon as an insane man and laughed at. When the illustrious Harvey, the glory of our Profession, united all the links his predecessors had pointed out, and united them to form the chain of the various phenomena which now explains the phenomenon of the general circulation, he was, then, branded by the whole Profession. When Herschel said, "There is a planet missing in the planetary system," and found it out, he went beyond the human region; but he was true. When Thales, the

Grecian philosopher, discovered that amber got an attractive power by friction, it appeared incomprehensible. Then came in course of time the subsequent discoveries in electricity: Franklin drew it from the clouds, Galvani found it in the frog, Volta found it in dissimilar metals; then it was found existing in the air we breathe, and collected from it at man's pleasure. Now, electricity is our messenger to distant climes; it is our workman in the shop of the artisan; it is the instrument in our laboratory; it is the universal agent everywhere and in all things; it is the great motor of the whole universe, and man, as a portion of this great whole, possesses it in his organism and is acted on by electricity: some may doubt it, but we are in a position to demonstrate that it is so! Why cannot one man have the chance to make a discovery as well as another? And why should we deny to electricity the property of being the first therapeutic agent, as well as its being the incomprehensible power which controls all things? This being the truth, I do not claim more than having discovered a new means of employing electricity in the cure of disease—to have formulated its application, and to have found that, according to natural laws, it must be and is the great and first curer of diseases, *applicable in every case*, when employed with discernment. Electricity is Nature's right hand; and whilst it does the work, we are only lookers-on.

We may, therefore, come to the conclusion, that when a disease is curable, electricity—duly applied—will cure it.

This, then, is the solution which I wanted to come to. The cases I have reported are an undeniable proof of it. I could have given a great many more, but I am compelled to stop short in the exposition of various cases I have in hand; but my little book has already grown far

beyond my anticipations, and to make it larger would rather make it indigestible. The public do not like large books to swallow: besides, they are a rather expensive article when bulky.

The only thing I wish to add is, that my Establishment is open to every person desirous of investigating the matter, that I have no secret to conceal, and that in all circumstances I shall receive with the greatest pleasure every medical gentleman who will kindly do me the honour of visiting my Establishment, feeling assured that I can but gain by the information and suggestions I may receive from them.

In conclusion, I have stated at the beginning that this work was written for the public, presuming that perhaps its being rather subversive of accredited opinions, the Profession would probably consider me venturesome. I am well aware of my position as a critical one: the only apology I can offer for my boldness is to assure the adversaries I might meet, that I do not intend to offer offence to any one—to repeat that I have the highest consideration for the members of the Profession, that I doubt not their goodwill to co-operate in all circumstances to the well-being of the community at large, and that I wish only to contribute my mite in the great work of assuaging human sufferings.

What I have presented to the public as facts, I stand by as being but the truth. If I have committed some mistakes in my deductions on the physiological laws of the organism, or on the pathological deductions I have drawn, I shall be most happy if in good faith and with good feelings any member of the Profession will kindly favour me with his remarks.

29 OCT 61



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